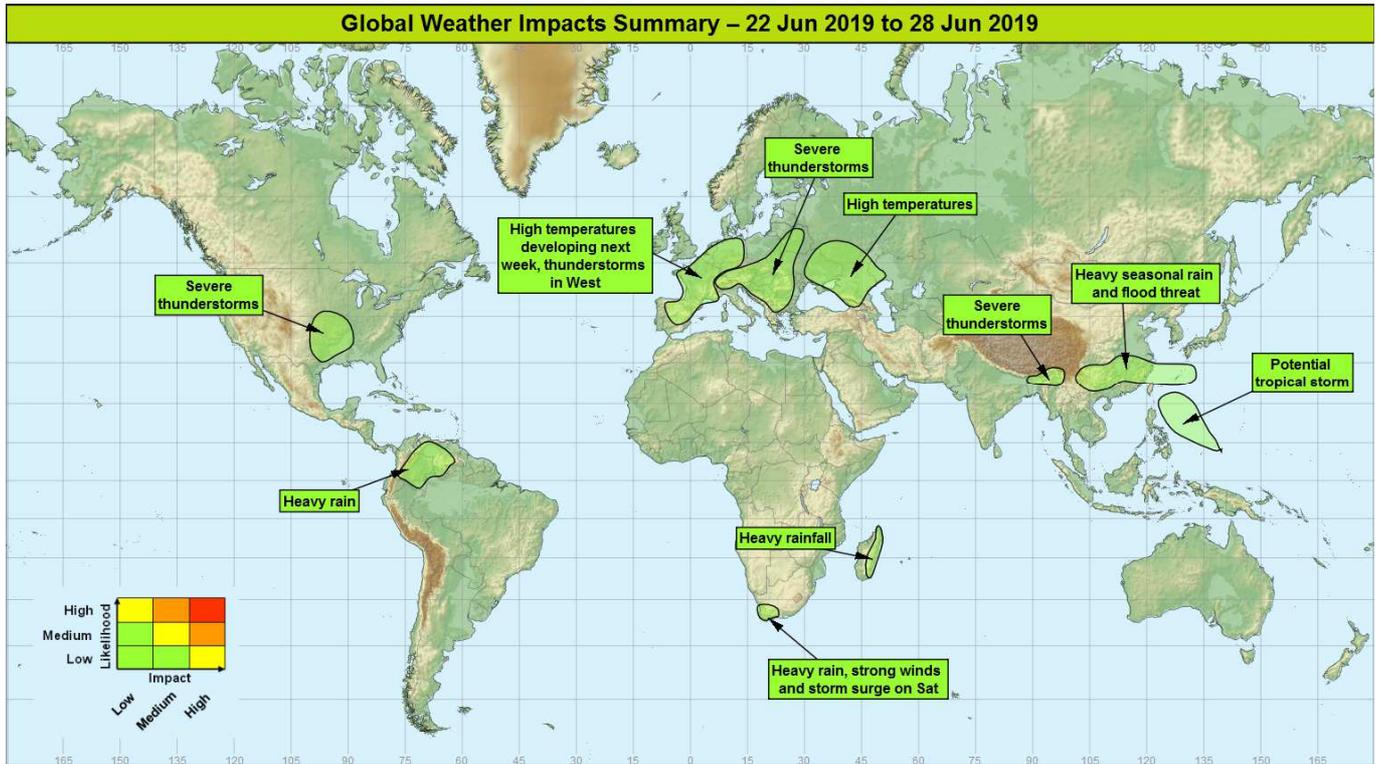


## Global Weather Impacts – Saturday 22<sup>nd</sup> to Friday 28<sup>th</sup> June 2019

Issued on Saturday 22<sup>nd</sup> June 2019

### HEADLINES

- Heatwave developing across W Europe; accompanied by severe thunderstorms at times in W.
- Heavy rain/thunderstorms NE India, N Bangladesh extending eastwards across China.
- Potential for a tropical storm to develop over the W Pacific in the next few days.



### DISCUSSION

#### Tropical Cyclones

There are no tropical cyclones currently, but the following area is being monitored for potential development:

#### West Pacific Weather

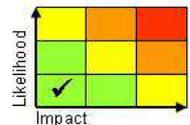
There is a growing signal for a tropical storm to develop in the West Pacific to the east of Palau over the next few days that then moves northwestwards. This has been named 94W by the Joint Typhoon Warning Centre. Most forecasts show this staying over open water, but there is a low probability that it could pass close to the north of the Philippines towards the middle of next week.

#### Discussion

The progression of the MJO into the Pacific makes tropical storm formation more likely in this basin. In addition, an area of deep convection associated with an equatorial Rossby wave is moving into an environment conducive to tropical storm development with low wind shear and high SST.

#### Expected Impacts

Nil.



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Tel: +44(0)1392 884319 VPN: n6225 4319 Email: [ggu@metoffice.gov.uk](mailto:ggu@metoffice.gov.uk)

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## Europe

### Western Europe

#### **Weather**

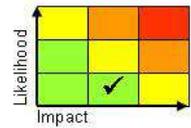
High temperatures are likely to develop across large parts of western Europe during next week. The hottest conditions seem likely to affect France, western Germany and Benelux with June records under threat. Here, temperatures will widely reach the mid- to upper-30s°C by midweek, perhaps exceeding 40°C in a few locations. In addition, the west of the area may see severe thunderstorms developing from Monday onwards.

#### **Discussion**

Low pressure is expected to be located to the west of the UK which will act to draw high temperatures northwards across western Europe. However, there is uncertainty over the position of the low and the exact west-east position of the hot air. Along the western boundary there is the potential for severe convection with some models showing very high severe convection diagnostics. If this were to develop then some places could see extreme rainfall, large hail and tornadic storms.

#### **Expected Impacts**

High temperatures will bring heat health impacts to vulnerable populations and place strain on some utilities and transport networks (e.g. railways). In addition, some places may see strong winds which could lead to an increased threat of wildfires. If severe convection does develop then extreme rainfall, lightning, large hail and tornadic storms are all possible.



### Southwest Russia, Ukraine, Georgia and western Kazakhstan

#### **Weather**

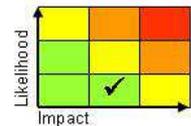
High temperatures are expected across the region over the next 4-5 days. Temperatures will increase to be up to 10°C above average for June, and in some places could be close to breaking June records as daytime maxima approach 40°C. Conditions are likely to gradually become less hot during next week.

#### **Discussion**

A broad northward extension of the hot air over Mesopotamia and Iran is expected to affect the far SE of Europe around the NW shores of the Caspian Sea and Black Sea over the rest of this week. While temperatures may approach June records in some areas, heatwaves in July and August tend to be more severe with higher temperatures likely.

#### **Expected Impacts**

High temperatures are likely to impact vulnerable populations such as infants and the elderly. In addition, high temperatures can strain utilities such as water and power through increased demand.



### Parts of central and southeastern Europe

#### **Weather**

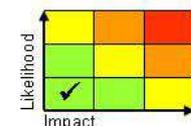
Although many parts of Europe will experience thunderstorms at times, the area identified will see the most frequent severe thunderstorms. Although many places will only see 15-30mm of precipitation, some spot locations could see in excess of 75mm, with most of this likely to fall in a short space of time. By Tuesday, the weather across the region will become less disturbed, with thunderstorms less intense and more isolated.

#### **Discussion**

With high WBPT air in place across much of central and southeast Europe, and various elements of upper forcing running across these regions, outbreaks of heavy, locally severe thunderstorms are likely through this region over the coming week. Given the combination of high precipitable water, and large CAPE, there is scope for significant rain/large hail.

#### **Expected Impacts**

Localised flash flooding along with power outages and disruption to the transport networks (especially aviation) is possible. Strong wind gusts and large hail are likely to cause localised disruption to transport and damage to crops, some buildings and vehicles.



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## North America

### Central and Southern Plains, USA

#### **Weather**

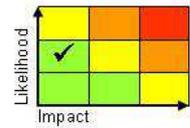
After a somewhat quieter spell of weather, the likelihood of widespread severe thunderstorms increases again from this weekend. These storms have the potential to bring intense rainfall, with 50-75 mm falling in a short space of time. Frequent lightning, strong winds, large hail and a few tornadoes are also likely. Activity will probably ease again toward the middle of next week.

#### **Discussion**

An upper trough crossing the Rockies will interact with a high WBPT plume moving north from the Gulf of Mexico to produce a risk of a severe thunderstorm outbreak across the central and southern Plains. High CAPE and large amounts of vertical wind shear suggest supercells are possible, with strong low-level flow supporting tornadic activity.

#### **Expected Impacts**

Localised flash flooding along with power outages and disruption to the transport networks (especially aviation) is possible. Large hail and tornadoes have the potential to cause damage to crops, some buildings and vehicles.



### Central America and Caribbean

Nil.

## South America

### Colombia and Venezuela

#### **Weather**

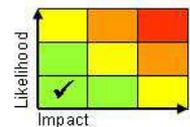
Heavy rainfall is expected across central Colombia and Venezuela over the next four days, with the highest rainfall totals most likely over east-facing slopes of the Andes mountains in Colombia where 80-100mm per day is possible.

#### **Discussion**

The ITCZ remains active with a series of westwards moving African Easterly Waves helping to maintain activity along it over the next three days before a decrease in activity is expected. The Andes will likely aid lift, resulting in orographically focused rainfall totals.

#### **Expected Impacts**

Further flash flooding and landslides are likely in this region. There is also the potential for river flooding along tributaries of the Rio Negra and Orinoco.



## Africa

### Eastern Madagascar

#### **Weather**

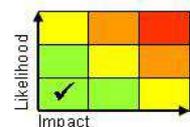
Further heavy rainfall will affect parts of eastern and southeastern Madagascar for the next couple of days. 30-50mm of precipitation is likely to fall widely, with in excess of 100mm falling in the mountains.

#### **Discussion**

A slow moving cut-off upper vortex will engage the high WBPT plume across the island leading to outbreaks of heavy rain and severe thunderstorms over the next few days before clearing away eastwards.

#### **Expected Impacts**

Localised flash flooding is possible along with an increased risk of landslides in mountainous areas.



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## SW of South Africa

### **Weather**

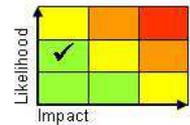
A deepening area of low pressure will pass close to the southwest tip of South Africa, particularly affecting the coastal city of Cape Town on Saturday. This will bring widespread 20-30mm of heavy rain, with locally 60mm over mountains in 24 hours. Winds will be 45-50mph in strength, gusting 60-70mph, while a storm surge and waves of 6-9m will inundate coastal areas.

### **Discussion**

This low will deepen explosively in the right exit region of a strong SW'ly jet very close to the Cape Peninsula threatening the city of Cape Town with a short lived period of very severe weather.

### **Expected Impacts**

These wind gusts will disrupt transport by closing bridges, damage is possible especially to informal structures, and may produce runaway wildfires. The heavy rain and hail from thunderstorms will also close roads and flood some properties. Large waves could inundate coastal properties and damage coastal infrastructure.



## Middle East

Nil.

## Asia

### North Bangladesh, far north-east India.

### **Weather**

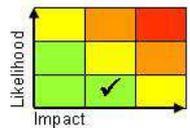
Thunderstorms with torrential rain and strong gusty winds will ease in the next couple of days, before activity increases again early next week. Through next week, many areas will see around 50mm per day, but up to 150 mm is possible in the heaviest rain. Localised accumulations of 250-300 mm are possible in total.

### **Discussion**

Regular diurnal destabilisation of the very warm, moist and unstable air mass over this region will produce severe thunderstorms, organised at times by cyclonicity aloft and upscale growth. Very large precipitable water and very tall, skinny CAPE will result in torrential downpours; low level shear evident in forecast profiles also favours the risk of tornadoes with potential for wind damage associated with this.

### **Expected Impacts**

Flash flooding and localised damage of property/infrastructure and transport links are possible.



### Southern China, and outlying southern Japanese Islands

### **Weather**

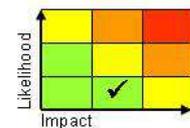
Further torrential rain and severe thunderstorms will affect parts of southern China over the next four-five days. 300-400 mm of rain could fall in places within a few days and there is also the potential for severe thunderstorms which could produce hail and strong winds.

### **Discussion**

Strong convergence along the Meiyu front and heating of the high terrain in the moist air to its south will continue to produce heavy rain in the form of showers and thunderstorms. Although shear is fairly modest for mid-latitudes, in the tropics this is sufficient for MCS development.

### **Expected Impacts**

Both fluvial and flash flooding is possible within the central and lower Yangtze River basin, with an additional risk of landslides in mountainous areas. Disruption to transport and infrastructure is also likely in what is a densely populated area.



## Australasia

Nil.

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**Additional information**

The Indian Summer Monsoon (ISM) is now over two weeks late in western and central parts of India, and ahead of this a drought and excessive heat are having significant impacts. A lack of water and temperatures of 40-45°C each day are causing heatstroke cases to increase; in Bihar state on Monday over 70 people died as a result, and schools have remained closed here due to a lack of water and the excessive heat. Rainfall next week is forecast to be close to normal, suggesting the ISM should finally move northwards to cover these areas.

**Issued at:** 220715 UTC    **Meteorologists**    Chris Tubbs/ Laura Ellam

**Global Guidance Unit**

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Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter

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