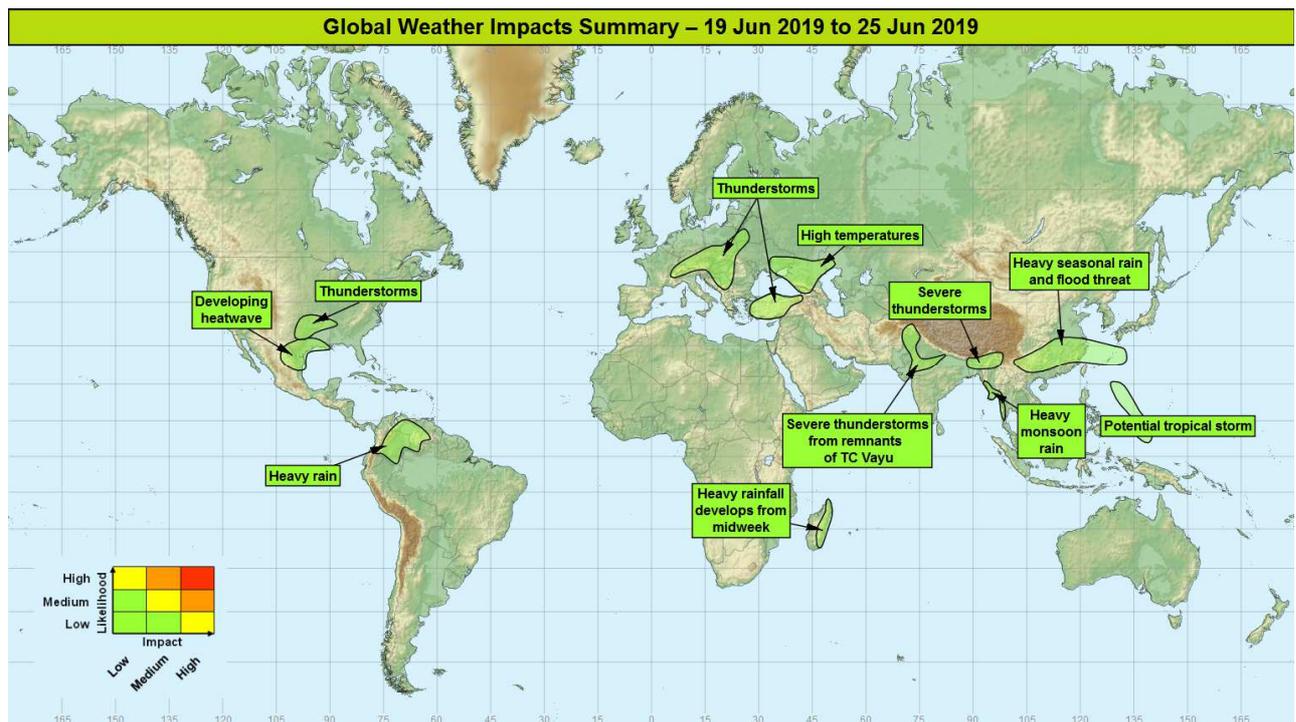


Global Weather Impacts – Wednesday 19th to Tuesday 25th June 2019

Issued on Wednesday 19th June 2019

HEADLINES

- Remnants of cyclonic storm Vayu moving inland across Pakistan & India leading to isolated severe thunderstorms.
- Heavy monsoon rainfall is expected across western Myanmar and southern China.
- High temperatures across far southeast of Europe, and parts of Mexico and Texas.



DISCUSSION

Tropical Cyclones

No current tropical cyclones.

West Pacific Weather

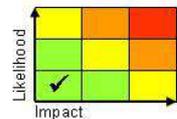
Some weather models show the potential for a tropical storm to develop in the West Pacific to the east of Palau over the next few days that then moves northwestwards and likely staying over open water.

Discussion

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. The probability of something developing is still there, with UKGM and ECMWF particularly keen to develop something, but keep it over open water to the East or Northeast of Mindanao, Philippines.

Expected Impacts

Nil.



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Europe

Parts of central, eastern and southeastern Europe

Weather

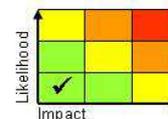
Although many parts of Europe will experience thunderstorms at times over the next 5-6 days, the two areas identified will see the most frequent severe thunderstorms. Although many places will only see 15-30mm of precipitation, some spot locations could see in excess of 100mm, with most of this likely falling in a short space of time.

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.



Southwest Russia, Ukraine, Georgia and western Kazakhstan

Weather

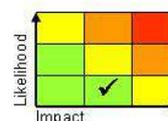
High temperatures are expected to develop across the region through the next week. Temperatures will increase to be around 10C above average for June, and in some places could be close to breaking June records as daytime maxima approach 40°C.

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 the week. While temperatures may approach June records in some areas, heat waves 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.



North America

Texas, Louisiana and northeast Mexico

Weather

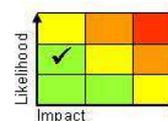
High temperatures will develop across this region through the rest of the week with temperatures rising each day. Parts of Texas and northeast Mexico could see temperatures reach the mid-40s°C, threatening some locations maximum June temperature records.

Discussion

An upper ridge amplifies over this region over the next few days, with a marked heat low forming over the southern Rockies in response to strong insolation. Trajectories show warm advection bringing air northwards from central Mexico, but also air descending from 400hPa to the boundary layer over coming few days. This method of adiabatic heating of the descending air has been shown to be a major source of heat in several record breaking heat waves in recent years.

Expected Impacts

Heat stress likely to adversely affect vulnerable and exposed (with no access to air conditioning) people. Additional impacts likely for livestock and crops in the region.



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Southern USA

Weather

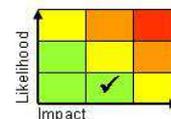
There is an enhanced risk of severe thunderstorms across parts of the southern and central Plains on Wednesday and Thursday. The main focus for the storms is likely to be across parts of western Oklahoma and west Texas on Wednesday, and northern Louisiana and Arkansas on Thursday where some places could potentially see 50-100mm of rain in a short space of time. Some spots may see up to 100mm where storms line up. Large hail and very gusty winds are also expected.

Discussion

An upper trough will interact with the high WBPT air across the region. This will lead to strong instability of the environment leading to the development of storms, with this process enhanced by a heat low. Profiles show very high CAPE values (widespread 2500-3000 J/kg, locally in excess of 4000 J/Kg) with the potential for supercells and MCS development.

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.



Central America and Caribbean

Northeast Mexico: See North America section.

South America

Colombia and Venezuela

Weather

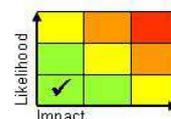
Heavy rainfall is expected across central Colombia and Venezuela over the next 4-5 days, with the highest rainfall totals most likely over east facing slopes of the Andes mountains in Colombia where 100-150mm per day is possible.

Discussion

The ITCZ remains active in the areas, with a series of African Easterly Waves helping to maintain activity along it, and through this area for the next week. The Andes will likely aid lift, resulting in orographically focused rain 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

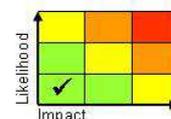
Heavy rainfall will affect parts of eastern Madagascar for the next 3 or 4 days. 50-100mm of precipitation is likely to fall widely, with in excess of 250mm falling in the mountains.

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.

Expected Impacts

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



Middle East

Nil.

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Asia

Western Myanmar

Weather

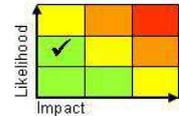
Further frequent intense showers and thunderstorms are expected over the next 2-3 days and this is likely to be followed by a break in the southwest monsoon rains. Around 100mm per day is possible across the region, with some places perhaps seeing 200-300mm during this period.

Discussion

Heavy rain associated with the SW monsoon may decrease over the weekend and into next week as the MJO continues E leading to a break period in the monsoon.

Expected Impacts

Flash flooding along with an increased risk of landslides.



Northwest India, and northern Pakistan

Weather

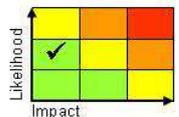
Isolated severe thunderstorms are expected on Wednesday and Thursday as the remnants of cyclone Vayu continue eastwards, with a few places likely to see 75-100mm of rain in a few hours.

Discussion

The remnants of Cyclonic Storm Vayu bring an injection of moisture to mid and upper levels of the atmosphere in this region. High temperatures at low levels and the heating of elevated terrain will allow the release of deep and energetic convection; with the subtropical jet overlaying this region strong vertical wind shear will assist with the formation of organised and severe long lived cells. Into the weekend, upper ridging builds from the west and suppresses convection.

Expected Impacts

A variety of hazards likely including heavy rain, the potential for very strong convective wind gusts (capable of causing damage to poorly constructed buildings), and hail in mountainous regions. Towards the south of the region storms may be capable of producing the odd tornado.



North Bangladesh, far north-east India.

Weather

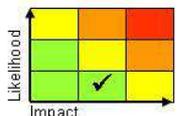
Thunderstorms with torrential rain and strong gusty winds will affect the region over the next several days, before activity slowly eases down to less severe levels. Many areas will see around 50mm per day, but up to 150 mm is possible in the heaviest rain. Localised accumulations of 200-300 mm are possible 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

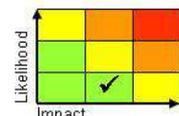
Further torrential rain and severe thunderstorms will affect parts of southern China over the next 4-5 days. 200-300 mm of rain could fall in places within a few days and there is also the potential for severe thunderstorms that could produce hail and strong winds.

Discussion

Strong convergence along the Mei-yu 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.



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Australasia

Nil.

Additional information

Nil.

Issued at: 190715 UTC **Meteorologists** Neil Armstrong/ Chris Tubbs **Global Guidance Unit**

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