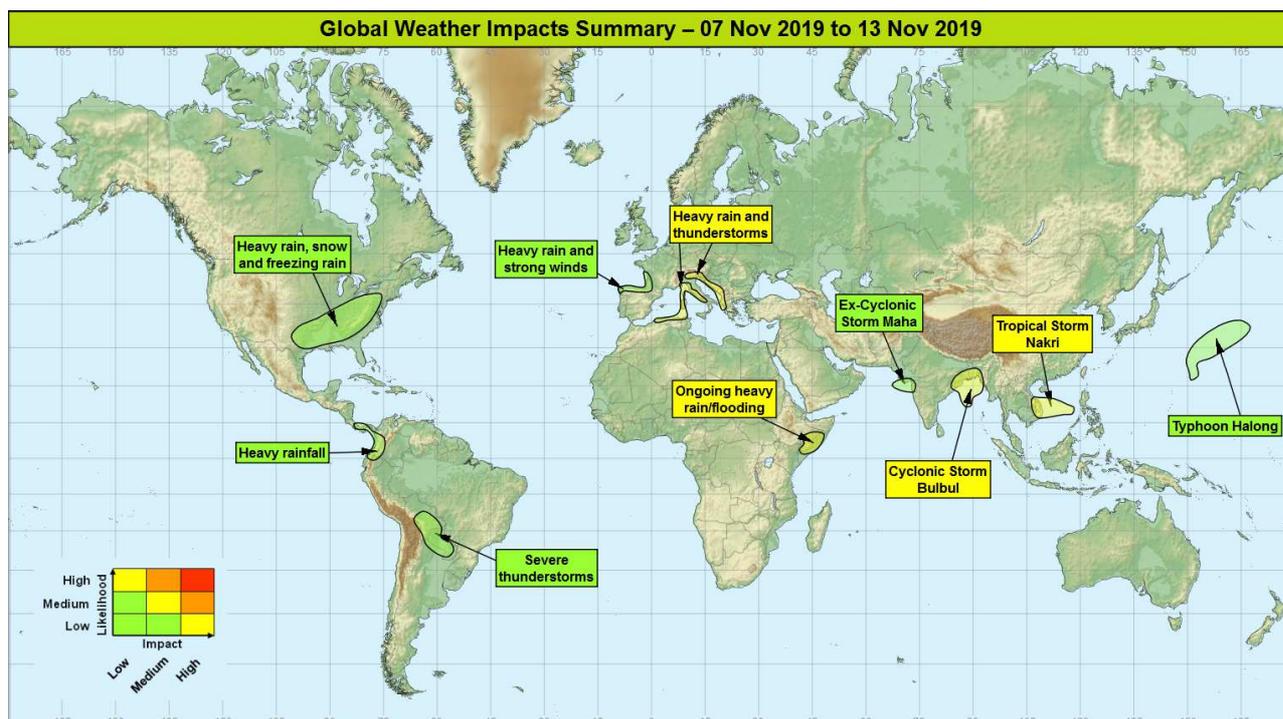


**Global Weather Impacts – Thursday 7<sup>th</sup> to Wednesday 13<sup>th</sup> November 2019**

Issued on Thursday 7<sup>th</sup> November 2019

**HEADLINES**

- Continued heavy rain and flooding across parts of Somalia and eastern Ethiopia.
- Remnants of Cyclonic Storm Maha expected to reach northwest India bringing heavy rain.
- Nakri forecast to affect Vietnam this weekend.
- Remaining very unsettled across the central Mediterranean.
- Cyclonic Storm Bulbul affecting Bangladesh and northeast India this weekend.



**DISCUSSION**

**Tropical Cyclones**

**Remnants of Cyclonic Storm Maha (Arabian Sea)**

**Weather**

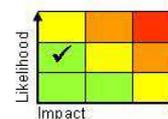
Maha peaked as an extremely severe cyclonic storm early Tuesday, but has since weakened. This trend expected to continue before the system reaches the Gujarat/Maharashtra coast during Thursday. Some 100-200 mm of rainfall is likely along its path. Although rainfall of this intensity is not unheard of in this region of India, it would still represent several times the November average, given that this is usually the start of the dry season here.

**Discussion**

Maha has steadily weakened over the past few days due to moving over a region of colder SSTs and a more hostile shear environment. A trough extension across Iran will lead to strong upper level westerly winds in this region; these will have the impact of steering the system towards the east, but also producing a hostile environment (strong vertical windshear) that will further weaken the cyclone as it moves east.

**Expected Impacts**

During the next few days Maha is likely to bring heavy rainfall to the coast of Gujarat and Maharashtra with flash flooding possible, although this is not now considered to be widespread.

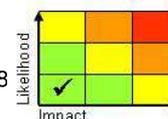


**Typhoon Halong (Northwest Pacific)**

*This forecast may be amended at any time*

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**Weather**

After going through a period of rapid intensification, Halong has now started to slowly weaken, although currently still with sustained 10 minute winds of 120 mph. Halong is well to the northeast of Guam (Northern Mariana Isles) and will continue to track away to the northeast, slowly weakening further as it does so.

**Discussion**

Typhoon Halong has likely reached its peak over the open waters of the west Pacific. The storm is likely to slowly weaken in the coming days whilst staying clear of land.

**Expected Impacts**

Limited to marine transport with this system not expected to impact any land.

**Tropical Storm Nakri (South China Sea)**

**Weather**

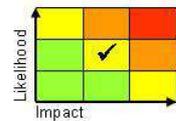
Tropical storm Nakri developed on Tuesday, with the tropical storm likely to track very slowly west toward Vietnam, probably reaching here by the end of the weekend. Nakri looks likely to intensify potentially becoming a typhoon by Friday. Nakri may affect similar areas which are still recovering from the impacts of the transit of Matmo across the area a week or so ago. Whilst heaviest rainfall from the system will likely be over open waters, some 150-300 mm of rain is possible for coastal parts of central Vietnam later in the weekend and early next week.

**Discussion**

Nakri is initially signalled to be almost stationary, before slowing moving toward Vietnam. Environmental conditions are conducive to further slow strengthening with the JMA forecasting the system reaching typhoon strength by Friday.

**Expected Impacts**

Some impacts from flash flooding are possible across parts of the western Philippines in the next few days. Longer term there is a growing likelihood of flood and landslide impacts for parts of Vietnam from the weekend.



**Cyclonic Storm Bulbul (Bay of Bengal)**

**Weather**

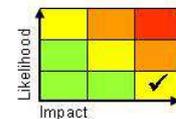
A large area of showers and thunderstorms consolidated into a tropical cyclone during Wednesday evening. Cyclonic Storm Bulbul is expected to head north and slowly strengthen over the next couple of days, becoming an intense system prior to making landfall over the weekend. Where and when it makes landfall is currently very uncertain, raining from Odisha region in India to southeast Bangladesh. Currently, the most probable track allows the cyclone to make landfall near the India-Bangladesh border later on Saturday, or perhaps Sunday. Bulbul has the potential to bring intense rainfall to a wide area of the northern basin of the Bay of Bengal, with 200 to 350 mm potentially falling quite widely with over 500 mm near the centre of the storm. Whilst it is highly unlikely that Cox's Bazaar will receive a direct hit from this tropical cyclone, there is a low likelihood that heavy rainfall, associated with the system could affect the area.

**Discussion**

Conditions have gradually become more favourable for tropical cyclogenesis over the past few days and during Wednesday a system finally developed. Cyclonic Storm Bulbul will remain over a high SST and low wind shear environment, allowing it to intensify as it moves north over the next couple of days. The track of the tropical cyclone becomes very uncertain by the weekend and its eventual landfall location and timing has low confidence.

**Expected Impacts**

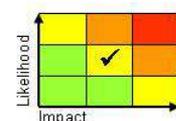
Dangerous seas will also develop in the region, with landslide, flash and river flooding impacts possible in Bangladesh, northeastern India and perhaps Myanmar by the weekend.



**Europe**

**Italy, Corsica, Greece, western parts of the Balkans and northern coasts of Algeria and Tunisia**

**Weather**



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

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Following recent heavy rainfall in this region, further active weather systems are expected to move across this region over the next week bringing persistent, heavy rain and thunderstorms to this area. The heaviest rain is likely to be focussed on southwest facing high ground of Italy, the Balkan region, and western Greece. Many places will see 25-50 mm in a few hours on wetter days, with some prone spots seeing as much as 200 mm per day. It's possible that some locations could see as much as 500 mm of rainfall in total by early next week, 2 to 3 times the average November rainfall. This accompanied by strong winds, especially around coasts.

**Discussion**

A cyclonic upper pattern will dominate through the week leading to a continuation of unsettled conditions. As upstream mobility increases this will see a number of plumes drawn across the region, which will see precipitation increasingly modulated by orography and act as a focus for heavy rain and thunderstorms.

**Expected Impacts**

Increased likelihood of flash flooding causing damage to property and infrastructure. Lightning strikes, large hail and tornadoes/waterspouts could also produce localised significant damage, particularly in the south of this region.

**Western France, northern Spain and Portugal**

**Weather**

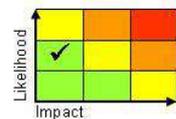
Conditions will also remain unsettled across this region with further spells of strong winds and heavy rain. During the next week around 50-100mm of rain will fall quite widely, especially across southwest France and northern Iberia, with potentially over 200mm in some spots. Winds will be strong at times, although we do not at present expect to see a repeat of winds of the strength storm Amelie brought to western France on Sunday.

**Discussion**

South-shifted Atlantic mobility will steer a number of active Atlantic systems into western Europe. Although no one system is expected to be as potent as storm Amelie, the cumulative effect of several systems could lead to increased impacts come the end of the week.

**Expected Impacts**

Increased risk of flooding. Risk of landslides in steep terrain. Strong winds may bring impacts to travel and power supplies.



**North America**

**Central & eastern USA**

**Weather**

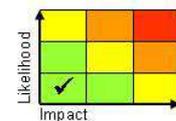
First significant winter storm of the season is expected to affect large parts of central and southern USA early next week, stretching from the Great Lakes to the Gulf Coast. A mixture of heavy rain, snow and freezing rain is expected along with strong winds. Snow and/or freezing rain could fall as far south as southern parts of Texas. Around 15-30 cm of snow could fall quite widely in regions where snowfall is not particularly common.

**Discussion**

An upper trough swinging SE from the Canadian Rockies will drive an active cold front SE across the USA, possibly forming a shallow wave depression enhancing precipitation further. Air of Canadian arctic origin will follow post front, reaching as far south as the Gulf Coast, bringing exceptionally cold conditions here. The rearward sloping nature of the frontal system will allow a well-marked cold undercut to develop, with snow falling widely across central/northern regions and freezing rain in the south.

**Expected Impacts**

Widespread travel disruption is possible as well as interruptions to power supplies due to ice accretion. Damage to crops is likely in the rapid freeze that is expected to take place.



**Central America and Caribbean**

**Panama and Costa Rica** – See *South America* section.

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

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**South America**

**Panama, Costa Rica, western Colombia and northern Ecuador**

**Weather**

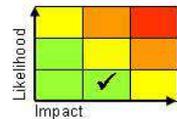
Enhanced shower and thunderstorm activity is likely across this region. 50 to 100 mm of rainfall is possible each day, with some places seeing up to 500 mm in total by the early next week, although these totals likely very localised.

**Discussion**

Surface rooted convection release is likely with in excess of 3000 J/kg CAPE available, leading to some severe and slow moving storms each day.

**Expected Impacts**

Increased risk of flash and river flooding with landslides possible in mountainous areas. In recent days 1000 people were affected when the San Jose river burst its banks in north western Colombia.



**Parts of Paraguay, southeast Bolivia and northern Argentina**

**Weather**

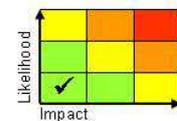
Spells of heavy rain and severe thunderstorms are forecast to continue northwards across this region at times over the next 5 to 7 days. Rainfall totals of 50-100 mm are possible in places each day, although this will only be in a few isolated locations. Frequent lightning, large hail and strong wind gusts will be additional hazards.

**Discussion**

The SACZ will remain active during this period, enhanced by a southward extension of tropical air over central South America engaged by various minor upper troughs in the subtropical jet. This will allow a mixture of surface based and elevated convection, severe thunderstorms (bringing large hail and greatest strong wind threat) are most probable towards the northern edge on zone of convection.

**Expected Impacts**

Flash flooding, transport disruption and a small risk of property damage from hail and wind gusts.



**Africa**

**Somalia and Eastern Ethiopia**

**Weather**

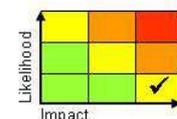
The remnants of cyclonic storm Kyarr will continue to produce heavy showers and thunderstorms across usually dry parts of Somalia/Ethiopia, perhaps bringing 25-75mm of rainfall over the coming few days. Drier conditions are expected to become established during this weekend.

**Discussion**

Areas of deep convection continue in the moisture plume which is the remnant of Kyarr. These areas of deep convection will promote frequent shower and thunderstorm activity over Somalia and parts of eastern Ethiopia over much of the coming days. Given recent media reports documenting severe flooding along the Jubba and Shabelle river catchments (which has already resulting in international financial aid), this additional rainfall will not be welcome.

**Expected Impacts**

Across Somalia and the far east of Ethiopia heavy rainfall could further exacerbate significant flooding that is currently ongoing along major rivers (including the Shabelle) in this region.



**Middle East**

Nil.

**Asia**

**South China Sea, Philippines, Vietnam** – See *Tropical Cyclone* section

**Northeastern India, Bangladesh and Myanmar** – See *Tropical Cyclone* section

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**Northwestern India** – See *Tropical Cyclone* section

**Australasia**

Nil.

**Additional Information**

The annual smog season across parts of Northern India is making news, with authorities describing pollution levels in New Delhi as unbearable <https://www.bbc.co.uk/news/world-asia-india-50280390> The remnants of Tropical cyclone Maha is likely to bring some relief in the form of rainfall on Thursday and Friday.

**Issued at:** 070820UTC    **Meteorologists:** Brent Walker / Tony Wardle    **Global Guidance Unit**

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