

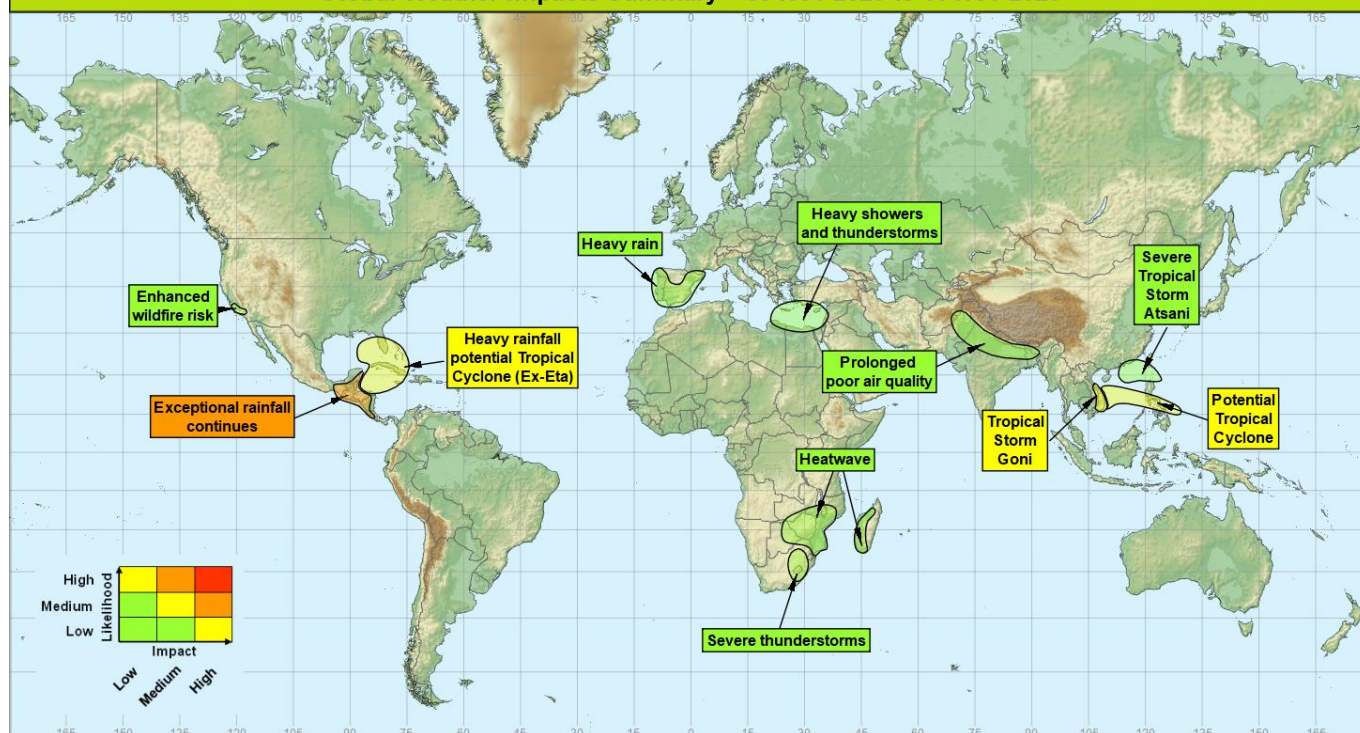
Global Weather Impacts – Thursday 5th November to Wednesday 11th November 2020

Issued on Thursday 5th November 2020

HEADLINES

- The remnants of Hurricane Eta continue to bring exceptional rainfall to parts of Central America.
- Heavy rainfall across the western Caribbean with the potential for a further tropical cyclone to form.
- Tropical cyclone activity continues to bring heavy rainfall to parts of Vietnam and the Philippines.

Global Weather Impacts Summary – 05 Nov 2020 to 11 Nov 2020



Tropical Cyclones

Tropical Storm Goni (South China Sea, Vietnam)

Weather

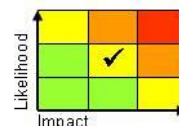
Tropical Storm Goni is expected to decay into a depression prior to reaching the coastline of Vietnam late Thursday or early Friday. The system is still expected to bring heavy rain, affecting Central Vietnam in particular. 100-200mm is expected widely, and a few locations possibly seeing over 400mm. The remnants of the circulation will then cross the Indochinese Peninsula, bringing a more modest 25-75mm of rainfall here. This event is likely to be less impactful than recent ones, however antecedent conditions will mean the rainfall is still likely to bring some impacts.

Discussion

After decaying from the powerful typhoon while crossing the Philippines, Goni has never regained much strength while passing over the South China Sea, due to persistent wind shear causing significant tilt to the circulation and even leading to the low level centre becoming exposed, which is now gradually weakening. As such most of the deep convection / rainfall will be north of the surface low, falling across central Vietnam, and to a lesser degree parts in Laos and Cambodia.

Expected Impacts

A much enhanced risk of landslides, flash and riverine flooding given very wet recent weather and reported flooding across this region.



This forecast may be amended at any time

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Severe Tropical Storm Atsani (Philippine and South China Seas)

Weather

Atsani is now moving slowly westwards, and is expected to pass between the northern Philippines and Taiwan on Friday, by which time it could well be a typhoon and bring 100-200mm of rainfall to the mountains of southeastern Taiwan. Thereafter Atsani is most likely to track southwestwards across the South China over the weekend, and bring some minor rainfall to parts of southern China. While moving across the South China Sea unfavourable environmental conditions will lead to a gradual weakening of the circulation into a remnant low.

Discussion

Confidence has now increased regarding the likely track of Atsani, threading the needle between Taiwan and the Philippines and bringing minimal impacts to land. Environmental conditions remain favourable for gradual intensification through to Friday, by which time the system is expected to be a typhoon. Thereafter decreasing SSTs, dry air entrainment, increased vertical wind shear and upper level convergence will lead to a gradual degradation of the circulation.

Expected Impacts

Strong winds and rough seas may cause some disruption to travel and utilities across the southeast of Taiwan. Rainfall may bring a risk of some minor flash flooding.

The following tropical cyclones are not expected to affect land:

Tropical Storm Odalys (Northeast Pacific Ocean) – Tropical Storm Odalys formed on Tuesday night over open water of the northeast Pacific. Odalys will head steadily westwards and decay into a depression today.

The following areas are being monitored for tropical cyclone development that may affect land over the coming week:

Western Caribbean

Weather

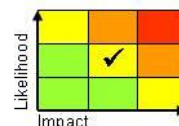
Within the large moisture footprint and circulation left by the now decayed Hurricane Eta, shower and thunderstorm activity will remain well above average across the western Caribbean. This activity will likely lead to the formation of a new tropical storm between Belize and the Cayman Islands on Friday, which will then likely be steered northeastwards towards Cuba over the weekend. Regardless of the degree of development, heavy rainfall will affect much of the highlighted region, many places in the area highlighted will see between 50-100mm of rainfall in the coming week, and if a tropical storm forms, a narrow corridor could see 250-500mm fall. Typical rainfall in the wettest months in this region is around 200-300mm.

Discussion

The broad gyre and moisture footprint around the remnants of Eta, shower and thunderstorm activity remain well above average and several vorticity maxima are evident. At least one (perhaps 2) of these maxima are signalled to consolidate into a circulation across the western Caribbean on Friday. This may be more like a sub-tropical storm in structure, owing to the upper trough in the vicinity as the feature develops and is likely steered by the aforementioned trough towards Cuba this weekend.

Expected Impacts

Increased risk of flash and riverine flooding over larger more mountainous islands such as Cuba, with an enhanced risk of landslides in such terrain too. If a stronger tropical storm develops winds will likely produce dangerous beach conditions, disrupt travel and utilities in the region.



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**Philippine and South China Seas****Weather**

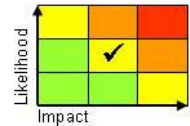
A cluster of showers and thunderstorms in the Philippine Sea will be steered northwestwards and cross the Philippines this weekend. There is potential that this area could consolidate into a tropical cyclone before reaching the Philippines, although the risk of this occurring is judged as low. Regardless of development this circulation will likely bring 75-150mm of rainfall quite widely across eastern parts of Luzon, with potentially 300mm or more over the mountains. Given this could well effect a similar area to those affected by Molave and Typhoon Goni in recent weeks, the additional rainfall is likely to bring impacts. Thereafter the circulation will move into the South China Sea and towards Vietnam, with further development possible but uncertain. With a further development possible in the Philippine Sea early next week.

Discussion

An Equatorial Rossby Wave in the Philippine Sea will move northwest and reach the Philippines this weekend, this wave will move across warm underlying SSTs, and in a zone of high atmospheric moisture, but appears to be inhibited by moderate to strong vertical wind shear, likely preventing this feature from becoming a tropical storm before reaching the Philippines. However the circulation will get a further chance to develop into a tropical storm once it moves into the South China Sea early next week (this uncertain). In the wake of this feature a further ERW in the Philippine Sea may also have the chance to develop into a tropical cyclone early next week.

Expected Impacts

An enhanced risk of flash/riverine flooding and landslides across the Philippines this weekend, and a risk for similar impacts across Vietnam in around a weeks' time.

**Europe****Portugal, Spain and southwest France****Weather**

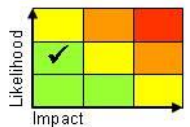
A slow moving area of low pressure will lie close to Iberia over the weekend, before clearing to the north early next week. This feature will likely produce areas of heavy rainfall across the region. 25-50mm is likely across much of Portugal, with these accumulation less widespread across Spain and southwestern France. Although over some of the regions mountain ranges more than 100mm could fall (with snow only above 2500 M). Typically this region sees 50-150mm during the average October (wettest along the Portugal Atlantic coastline).

Discussion

An anticyclonic disruption takes place across northwest Europe, leading to a cut off upper vortex becoming slow moving to the west of Iberia. A co-located surface low sits beneath this upper feature with both drawing moisture northeastwards from the tropical Atlantic and depositing this across the region as heavy showers and rainfall (snow only for the highest mountains). Early next week the cut-off vortex begins to pull away to the northeast allowing a ridge to build and bring a short-lived spell of more settled conditions to the region.

Expected Impacts

Impacts possible from minor riverine and surface water flooding.



Crete and perhaps Cyprus – See *Africa* section.

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North America

Southwestern California

Weather

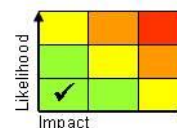
Fairly strong Santa Ana winds which are warm and very dry will occur across southwestern California through today. Given there are ongoing wildfires in the region seen in recent satellite imagery, these conditions will encourage some fire growth and spread.

Discussion

An inland to coast pressure gradient will exist across the Sierra Nevada mountains today and encourage strong winds through some of the topographic passes and gaps. Into the weekend this gradient will reverse, and a cold front will bring cooler conditions to the region too.

Expected Impacts

Increased chance of growth and spread of ongoing wildfires, and containment of these will be more challenging. Locally poor air quality due to smoke.



Central America and Caribbean

Nicaragua, Honduras, Costa Rica, Belize, Guatemala, El Salvador, & southern Mexico

Weather

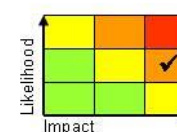
A wide areas within the moisture footprint and broader circulation of ex-hurricane Eta will continue to bring extreme rainfall to this region (following 2 days of already exceptional rainfall). The heaviest rainfall is expected to be across parts of Belize, Honduras, Guatemala and southern Mexico on the forward side of the circulation where an additional 500mm of rain could fall, and across western Nicaragua and Costa Rica to the south where a further 600mm could fall. From Saturday onwards as the circulation and moisture pulls away to the northeast rainfall across the region is expected to return to near normal, however by this time some areas will have likely seen more than 1000mm of rainfall through the entire event, with 300mm a typical total for the wetter months of the year in this region.

Discussion

Within the broad gyre surrounding the remnants of Hurricane Eta conditions will be ripe for continued and frequent deep convection. This will be focussed where strong onshore breezes intersect high terrain, so across the Caribbean and Gulf of Mexico coastlines for the northern countries, and the Pacific coastlines for countries towards the south of this region. As the circulation pulls away to the northeast, drier air will be drawn across much of the region from Mexico returning precipitation to nearer normal as we enter a drier part of the year in this region.

Expected Impacts

Exceptionally enhanced risk of severe flash and riverine flooding. Landslides are highly probable where steeper terrain, and given the regions abundant active volcanoes, some mobilisation of volcanic debris is also possible.



Western Caribbean – See *Tropical Cyclones* section.

South America

Nil.

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Africa

Northern Egypt, Libya, southeast parts of the Middle East, southeast Turkey and perhaps Crete / Cyprus

Weather

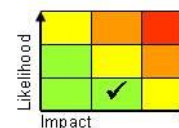
Following a reduction in deep convection across the Levant from recent days, another area of active showers and thunderstorms across the southeastern part of the Mediterranean may become organised around a shallow low and push west of northwestwards towards the central Mediterranean. This could see heavy showers and thunderstorms move across relatively dry and barren areas of northern Egypt and Libya, and the potential for some showers to spread towards Turkey, Crete and Cyprus early next week. Although precipitation accumulations are only signalled to be around 50-75mm (much of this could fall in a short duration), typical rainfall in a month along the north African coastline is just 20-40mm.

Discussion

Beneath a broad cyclonic upper pattern and over the warmest SSTs in the Mediterranean, persistent convection is signalled to form a shallow warm cored low that may organise convection even further. This low may push west or northwest, and the flow around it feed an unusually high abundance of showers and thunderstorm onto parts of the north Africa coastline in particular.

Expected Impacts

Impacts largely confined to populated urban areas where this unusual and short duration rainfall could will cause some significant flash flooding.



South Africa and Lesotho

Weather

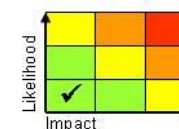
Heavy showers and locally severe thunderstorms will affect the region today, and then after a few quieter day return to a similar region early next week. These storms could generate 25-50mm of rain in just an hour or so, along frequent lightning, hail and strong gusts of wind.

Discussion

The usual pattern for severe thunderstorm in this region will continue through today, and then return once more early next week. This pattern sees a warm moist plume drawn southeastwards ahead of an upper trough, profiles show steep lapse rates, high CAPE, and sufficient shear for organised and deep convection capable of bringing a multitude of hazards.

Expected Impacts

Localised flash flooding is possible if the heavy showers cross over densely populated areas such as Johannesburg, as well as property/infrastructure damage from large hail, strong winds and lightning (especially in areas with substandard infrastructure already). Increased likelihood of rapidly developing wildfires presenting a risk to property and livestock.



Mozambique, Zimbabwe, Madagascar and parts of neighbouring countries

Weather

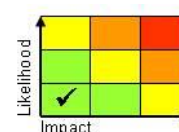
A heatwave has now developed across this region with temperatures likely peaking over the weekend. November is the hottest month across much of this region, with maximum temperatures in places such as Harare likely to reach the mid-high 30s°C, and temperatures in parts of Mozambique exceed 40°C. These values are still around 5-10°C above average.

Discussion

A combination warm advection, and then from the middle of next week subsidence and adiabatic compression has led to well above average temperatures developing across this wide region in what is usually the hottest month of the year, this occurring prior to the arrival of the seasonal rains over the following weeks

Expected Impacts

Heat health impacts likely for vulnerable humans and livestock.



Middle East

Syria, Lebanon, Israel, Turkey– See *Africa* section.

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Asia

Philippines, central Vietnam, southern China and Taiwan - See *Tropical Cyclones* section

Northern India, Pakistan, Afghanistan, Nepal and Bangladesh

Weather

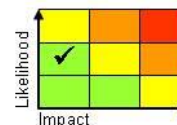
Very poor air quality is being reported and is expected to continue over this week, as light winds and increased particulate emissions, and seasonal crop burning combine to bring hazardous conditions, particularly by night.

Discussion

Particulate emissions are increasing now due to an increase in fires/heating/lighting, and as the post-monsoon dry season progresses, light winds and overnight inversions will trap particulates near to the ground fairly widely in this area. There is still enough mixing during the daytimes to reduce pollution levels temporarily, but with winter coming this will be less and less likely with more prolonged periods of hazardous air quality expected.

Expected Impacts

Effects such as breathing difficulties will be largest among (though not limited to) vulnerable sections of the population with existing health issues.



Australasia

Nil.

Additional Information

Cox's Bazar, southeast Bangladesh

Conditions largely dry and fine.

Yemen

Predominantly dry conditions are expected with isolated showers affecting the far south and western coasts at times as is normal at this time of year.

Sudan/South Sudan

The dry season has developed across much of Sudan and the north of South Sudan with showers only likely to continue close to the Red Sea coast. Across the south of South Sudan showers continue much reduced in frequency compared to recent times, with a good deal of dry weather even here.

Issued at: 050800 UTC

Meteorologists: Nick Silkstone / Chris Almond

Global Guidance Unit

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