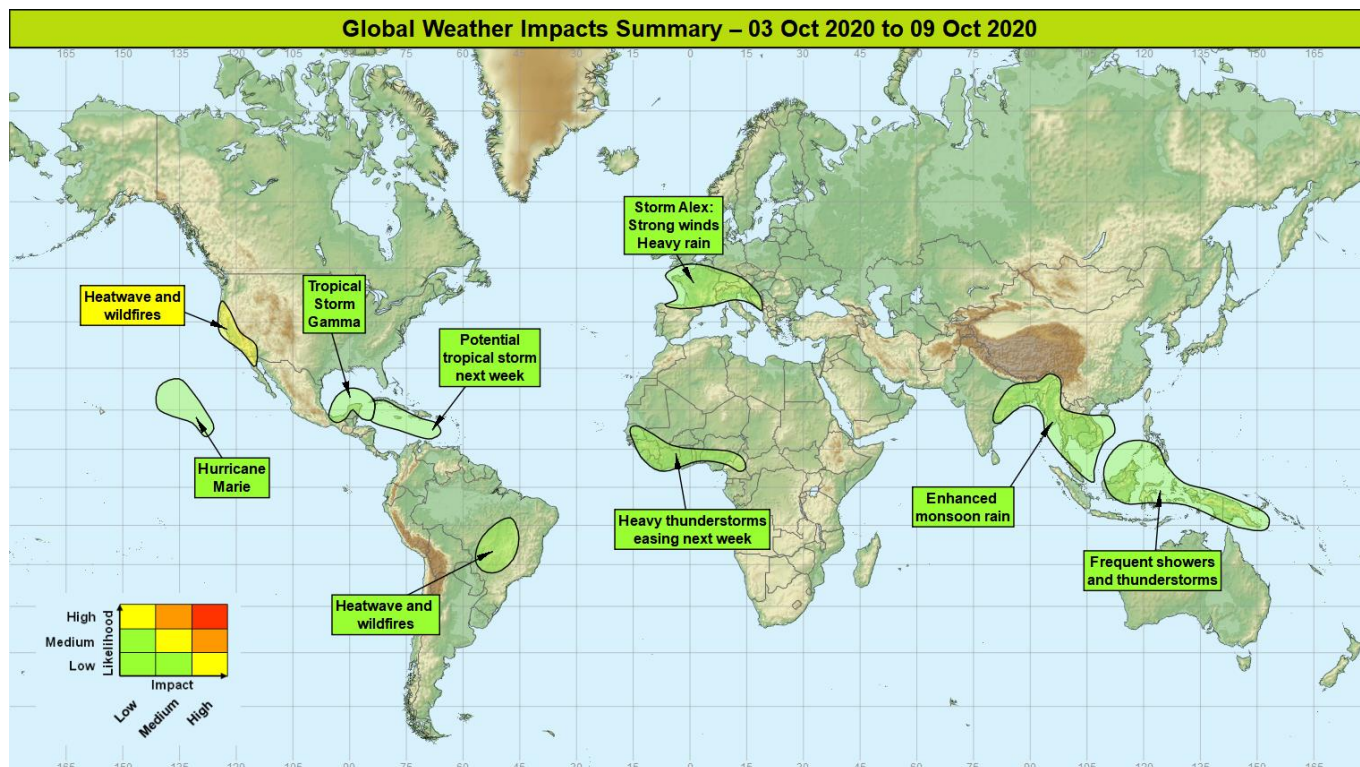


Global Weather Impacts – Saturday 3rd to Friday 9th October 2020

Issued on Saturday 3rd October 2020

HEADLINES

- Storm “Alex” continuing to bring strong winds and heavy rain to parts of Europe.
- Heatwave and wildfire conditions continuing across California and parts of South America.
- Tropical Storm Gamma has developed in the western Caribbean.



Tropical Cyclones

Tropical Storm Gamma, Western Caribbean

Weather

Tropical Storm Gamma formed from a cluster of showers and thunderstorms just to the southeast of the Yucatan Peninsula overnight, and currently has a sustained wind speed of 40mph. The system is expected to move across the Yucatan Peninsula today, and then emerge into the southern Gulf of Mexico where it will become flow moving through to the middle of next week. Limited intensification is expected, with rainfall likely to be the greatest hazard with 100-250mm falling across eastern Mexico and the far west of Cuba.

Discussion

Within a broad gyre which has developed across Central America a small circulation has managed to spin up just to the east of the Yucatan Peninsula. Within this circulation better banding is now evident in satellite imagery, and reconnaissance aircraft have found winds around the close circulation to exceed 40 knots. Environmental conditions are favourable for some slight intensification in the short term before Gamma tracks across the Yucatan Peninsula later today, before it emerges into southern Gulf of Mexico and then moves slowly into the Bay of Campeche next week, where dry air entrainment and an increase in shear should prevent any significant strengthening.

Expected Impacts

Flash flooding and an enhanced risk of landslides.



This forecast may be amended at any time

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Hurricane Marie, Eastern Pacific Ocean

Weather

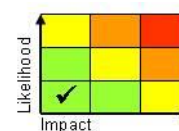
Hurricane Marie is now a major hurricane with sustained winds of around 130mph. It will continue to track westwards in the coming days while continuing to weaken and is expected to decay to a depression by the middle of next week. This system will not impact any land.

Discussion

Marie is now being steered to the northwest which will see the system encounter more hostile environmental conditions in the next 24 hours or so with increased vertical wind shear, and a track into an area of cooler SSTs. This should mean the system will gradually weaken.

Expected Impacts

Nil.



The following area is being monitored for tropical cyclone development:

Central to western Caribbean

Weather

A broad cluster of showers and thunderstorms is continuing to push west across the Caribbean, there is a moderate chance that as this region moves into the western Caribbean towards the middle of next week it may develop into a tropical storm. Even while there is little risk of the system developing into a tropical storm, it will still likely bring heavy rainfall 75-150mm to southern Hispaniola, Jamaica, the Cayman Islands and parts of Cuba.

Discussion

A tropical wave over the central Caribbean Sea is producing a large area of disorganised showers and thunderstorms, accompanied by locally heavy rainfall and gusty winds.

Environmental conditions could become a little more conducive for development when the system is over the central or western Caribbean Sea early next week

Expected Impacts

Regardless of development flash flooding and an enhanced risk of landslides. A low risk of impacts from strong winds is a tropical storm develops in the middle part of next week.



Europe

Parts of western and central Europe

Weather

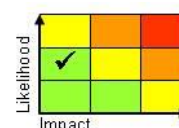
Very wet and windy conditions are expected to continue over some western and central parts of Europe over the weekend. Continued heavy rainfall events will allow some large accumulations to build up on top of what fell on Friday, with another 50 -100 mm of rain falling widely, especially over parts of France, the higher ground of northern Spain, and the Dinaric Alps. Across the Alps potentially another 200mm is possible by the start of next week (further significant snowfall likely over about 2000m). Although the strongest winds have now subsided areas around the Bay of Biscay are still expected to see Gales or Severe Gales and this along with a significant swell from Friday's winds this will create very large waves.

Discussion

A major surface and upper low will remain slow moving over the weekend, though they will slowly fill by early next week. Various frontal and convective bands swirling around the low will bring some intense downpours to many places, and given the slow-moving nature of some of these – some locally large rainfall are expected. Although it is Autumn, it is still early in the season and while these conditions aren't unprecedented, they certainly have the potential to cause further disruption given the intensity and duration of rainfall, and the strength of the winds near the low, combined with trees which are presently in full-leaf.

Expected Impacts

Increased risk of flash flooding and riverine flooding over the weekend. Disruption to travel and interruptions to power supplies are possible due to strong winds as trees (which are presently in full-leaf) are especially susceptible although generally winds are now easing. Large waves are still expected at sea and near some coasts, particularly in the Bay of Biscay where some disruption to marine traffic is likely too as well as some damage to sea defences.



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North America

Western USA (especially California), northwest Mexico

Weather

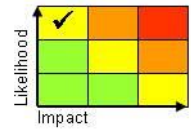
Heatwave conditions are expected to continue, in conjunction with strong, gusty winds and dry air. Numerous wildfires continue across the west of the US, the most significant of these across California – with conditions remaining conducive to spread and further generation of fire in the coming days.

Discussion

Little change to the weather pattern with a strong upper ridge and strongly subsided, warm and very dry air mass across the region. Temperatures are likely to continue around 8-10°C above the seasonal norm, and encouraging the redevelopment and/or spread of fires in the region.

Expected Impacts

Continued poor air quality is likely, especially for California, and continuing critical fire weather conditions. Heat health impacts likely in conjunction with the prolonged period of heat in the Central California Valley.



Central America and Caribbean

Central & western Caribbean including eastern Mexico– See *Tropical Cyclone* section

South America

Parts of Southeast-Central Brazil

Weather

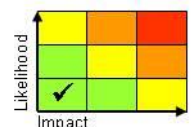
Heatwave conditions, coupled with strong winds continue this week. Temperatures widely mid to high 30's Celsius, locally into the low 40s Celsius, which is 10°C or more above average. Conditions will become increasingly conducive to the spread of wildfires, of which there are numerous within this region.

Discussion

Sustained warm advection combined with ridging aloft continues to promote some very high temperatures across the region. A strengthening wind in the south of this area will lead to conditions more conducive to wildfires growth and spread for a time. A cold front arriving from the south will start to displace the heat northwards briefly this weekend, but the hot conditions will return and look like lasting for a while yet.

Expected Impacts

Heat health impacts on vulnerable demographics, particularly in the south of the region, where all-time temperature records could be challenged. Increased likelihood of wildfire generation, bringing increasingly poor air quality and threat to communities.



Africa

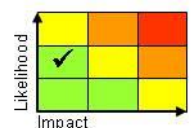
Much of West Africa as well as parts of central Africa

Weather

Further periods of heavy showers and thunderstorms will affect the region at times over the weekend. Whilst not all areas will see heavy rain, each day 50-75mm could fall in places within a few hours, and over this period the wettest areas may see 100mm build up. If anything activity looks to be rather less than we have seen in recent weeks, and should continue to ease a little next week.

Discussion

Many parts of this area have experienced floods and flooding impacts in what has been an active period for African Easterly Waves. Further AEWs are expected in the coming days, though there remains some model differences as to detail of the convection associated with these features. There are signs that activity could ease further in to next week.



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Expected Impacts

The potential for further flash and riverine flooding across much of the region, although not as widespread and severe as in the recent past.

Middle East

Nil.

Asia

Eastern India, parts of Bangladesh, Myanmar, Thailand, Laos, Cambodia and Vietnam

Weather

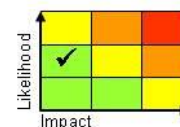
Enhanced shower and thunderstorms activity is likely in this area over the next week, with many parts seeing 100-150mm of rain. The wettest parts of the region are likely to be northeast India as well as western Thailand. Here, some 200-300mm is possible, this almost twice the October average for the area (though well short of record values for the region).

Discussion

A broad monsoon trough now exists across the Bay of Bengal, with strong southwesterly flow on its southern periphery feeding abundant moisture-laden air northeastwards bringing enhanced rainfall across parts this region in the next few days. There will be an orographic component to the rain, with mountainous parts likely to see some heavy rainfall.

Expected Impacts

Flash flooding, and landslides will be the primary hazard, although impacts are likely to be lower than recent weeks.



Parts of Indonesia, Malaysia, Philippines, Brunei and Papua New Guinea

Weather

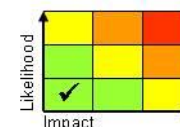
Heavy showers and thunderstorms will continue to be more frequent, intense and widespread than normal in the next day or two. Within the broad area highlighted some spots in most of these countries will be at risk of seeing 100-150 mm of rainfall. Thereafter more normal rainfall patterns should prevail in to next week.

Discussion

Higher than normal SSTs in the region and enhanced easterly trade winds, in part due to the ongoing La Niña event, is fuelling deep convection with showers and thunderstorms in the next few days. A slight easing in the trade winds by Sunday is expected to lead to more normal rainfall patterns thereafter.

Expected Impacts

Increase in the risk of flash flooding, and landslides in mountainous areas.



Australasia

Nil.

Additional Information

Cox's Bazar, southeast Bangladesh

Although monsoon activity in the wider region is expected to be enhanced, Cox's Bazar should avoid the heaviest rain for most of the time. That said – some showers and thunderstorms are still likely to be driven onshore by southwesterly winds from the Bay of Bengal, interspersed with periods of dry weather. Some 10-15mm of rain are likely with these showers, with a lower risk of seeing double this in any more prolonged, or heavier showers. This is around normal, or even a little below normal for the time of year.

Yemen

The development of very isolated, heavy showers is possible over the Western Highlands. Activity is expected to be around average for this time of year meaning many places will remain dry.

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Sudan/South Sudan

The bulk of the shower activity will be seen in South Sudan through the next 7 days. 25-50mm of rain per day possible from daily showers and thunderstorms, and perhaps as much as 75-100mm at any one location over the course of the coming week. This is fairly typical for the season. Much of central and northern Sudan will be mainly dry, although the South Sudan border region will see heavy showers most days, but with rainfall totals less than further south.

Issued at: 030315 UTC **Meteorologists:** Chris Almond

Global Guidance Unit

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