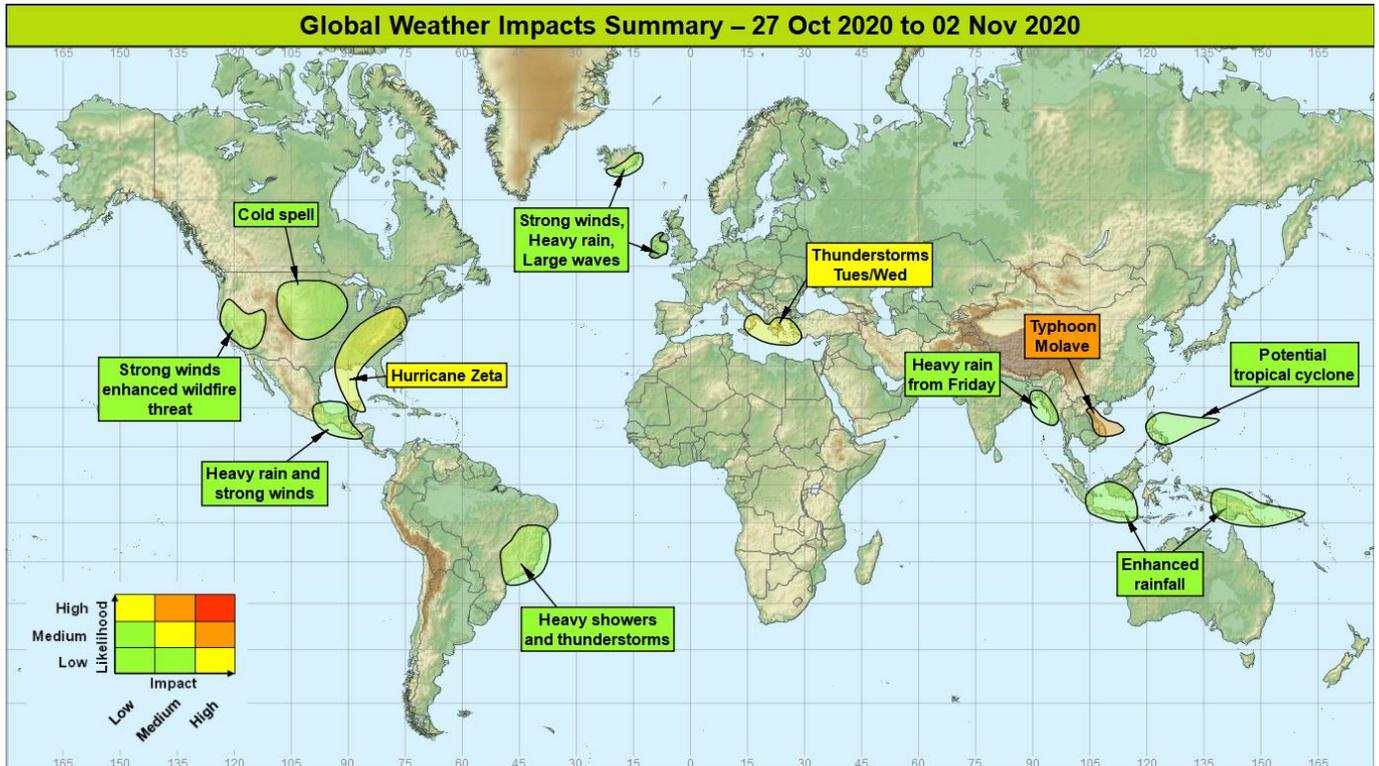


## Global Weather Impacts – Tuesday 27<sup>th</sup> October to Monday 2<sup>nd</sup> November 2020

Issued on Tuesday 27<sup>th</sup> October 2020

### HEADLINES

- Typhoon Molave expected to make landfall over Vietnam on Wednesday bringing further very heavy rain.
- Hurricane Zeta affecting Mexico today and the US Gulf coastline later in the week.
- Thunderstorms impacting areas around the Central Mediterranean today and tomorrow.



### Tropical Cyclones

#### Typhoon Molave (South China Sea – Vietnam, Laos and Cambodia)

##### Weather

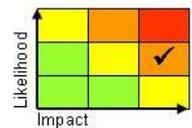
Molave remains a typhoon as it moves west over the South China Sea. Landfall is expected over central Vietnam (near or south of Da Nang) during Tuesday night and into Wednesday, probably maintaining typhoon strength ahead of landfall. The system will rapidly weaken as it moves inland across Southeast Asia on Wednesday and into Thursday. However, after a short-pause, further heavy rainfall is expected to develop in these areas in the latter part of the week and into the weekend. Molave itself is expected to bring 100-200 mm of rainfall to a wide area with peaks of 300-400 mm close to where it makes landfall. Much of this rain falling on areas which are still saturated and/or are already suffering from ongoing flooding. There is the potential for a further 200-300 mm to fall in places on Friday and over the weekend although exactly where the heaviest of this rain will fall is more uncertain.

##### Discussion

Molave continues to strengthen over the South China Sea where environmental conditions are favourable for maintaining winds which are currently in the range 90 to 100 mph. This system looks likely to take a similar track to Linfa and with a more southwards trajectory than typhoon Saudel there is a greater chance of it remaining as a typhoon up to landfall.

##### Expected Impacts

Further flash and river flooding looks likely. The worst impacts expected in Vietnam but parts of Laos and Cambodia could also see flooding. This system also brings additional hazards of potential coastal flooding from the storm surge and winds strong enough to cause damage to buildings and infrastructure.



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

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## Hurricane Zeta (western Caribbean, southeast Mexico and the USA Gulf coastline)

### Weather

Zeta strengthened into a hurricane yesterday evening over the western Caribbean. Zeta is now moving over the Yucatan Peninsula bringing damaging winds, torrential rain (100-200 mm) and a dangerous coastal storm surge. This is likely to cause some weakening but Zeta is forecast to strengthen back into a hurricane whilst over the Gulf of Mexico before making landfall, most likely over Louisiana early on Thursday. This again bringing torrential rain and likely damaging winds to areas near its track upon landfall along with a storm surge. Whilst Zeta will soon weaken as a tropical system as it moves inland across the USA, it still has the potential to produce areas of heavy rain (and possibly heavy snow across the northeast of the USA as it runs into much colder air).

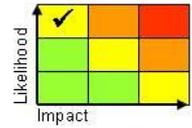
### Discussion

Zeta looks set to intensify as a hurricane again once into the Gulf of Mexico. Models are in relatively good agreement regarding its timing and track in terms of reaching the Gulf coast. However, increasing interaction with a major cut off upper low from mid-levels makes its intensity forecasts more difficult. The increased wind shear potential leading to some weakening ahead of landfall. However, once into the interior of the USA this will help strengthen the baroclinic environment across the USA with the in-situ dig of cold air across the centre of the country. It looks likely that the remains of Zeta will be subsumed into a major extratropical development later this week which may bring disruption to east/northeast parts of the USA from heavy rain and strong winds as well as snow on the system's north/northwest flank.

### Expected Impacts

Increased risk of flash and river flooding. Coastal flooding possible from associated storm surge. Winds likely strong enough for some localised damage to buildings and infrastructure.

*The following area is being monitored for potential tropical cyclone development.*



## Northwest Pacific

### Weather

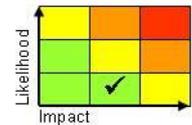
An area of heavy showers and thunderstorms moving west over the Philippine Sea has a moderate chance of strengthening into a tropical storm by the time it reaches the northern Philippines over the weekend bringing the threat of strong winds. Irrespective of development heavy rain is expected for parts of the northern Philippines with the potential for 200-300 mm to fall in a 24 hour period in places.

### Discussion

A disorganised area of convection as an ERW moving west over the Philippine Sea looks likely to become more organised over the coming days. There is still significant model spread in the handling of this potential system but there is an increased likelihood of a tropical cyclone formation in the vicinity of the northern Philippines during the coming weekend.

### Expected Impacts

Increased threat of flash flooding and damaging winds also possible.



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## Europe

### Iceland and Ireland

#### Weather

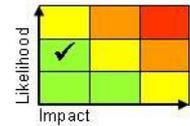
A large, deep low pressure system has formed over the open Atlantic to the northwest of the British Isles and contains the remnants of Hurricane Epsilon. This and then further systems developing on its southern flank will bring spells of strong winds and heavy rain to Iceland and Ireland during the remainder of the week and over the coming weekend. Winds for exposed areas may reach 50-80 mph at times. Rainfall totals will build through the period with the wettest areas (western Ireland and southeast Iceland) potential seeing 100-150 mm of rain building up, especially over high ground.

#### Discussion

A strong North Atlantic jet stream will drive a few extremely deep mid-latitude lows across the northeast Atlantic over the coming seven days, with the potential for several small scale features developing in their circulations, bringing further wind and rain. The strongest winds associated with the systems look likely to remain out over the open ocean although there is an increased risk of cyclogenesis closer to Ireland over the coming weekend, all aided by the high PWAT airmass.

#### Expected Impacts

Most likely minor impacts to travel and utilities, along with dangerous conditions at sea and along the coasts with large waves. Some localised minor flooding is possible in association with the heavy rainfall.



### Southern Italy, southern Greece and southwest Turkey

#### Weather

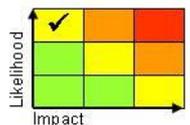
Severe thunderstorms are expected across southern Italy on Tuesday before spreading to southern Greece (including the Aegean islands and Crete) as well as southwest Turkey later on Tuesday and during Wednesday. There is the potential for 50-100 mm to fall in a few locations within a short period (a few hours). Thunderstorms will bring additional hazards of strong, gusty winds, hail and lightning.

#### Discussion

An extending upper trough will engage a warm plume in the Central Mediterranean that will steer deep convection from southern Italy across Crete, southern Greece and southwest Turkey during Wednesday and Thursday, with a cooler airmass following from the west.

#### Expected Impacts

Flash flooding and landslides look likely to be the main impacts. Risk of very localised damage from hail and/or strong winds (isolated tornadoes possible).



## North America

### Central USA

#### Weather

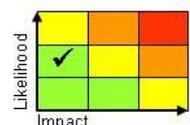
An early season cold spell is underway across a central swathe of the USA with temperatures 15-20°C below average across a large area. This spell will bring a range of hazards including snowfalls, ice and overnight frost. Temperatures will moderate from the west over the next few days.

#### Discussion

Cyclogenesis across the Great Lakes and eastern Canada has drawn an area of arctic air south to areas east of the Great Continental Divide. This southward push further enforced by lee cyclogenesis across the southwest USA on Monday, allowing arctic air to reach as far south as Oklahoma and northern Texas.

#### Expected Impacts

Minor transport disruption and health impacts for vulnerable and exposed populations.



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## Parts of southwest USA, especially California

### **Weather**

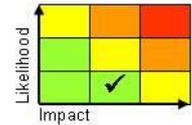
The cold outbreak described above will likely bring very dry air and strong and gusty winds to these areas. With several wildfires already burning in the region, these winds could cause existing and any new fires to quickly grow and spread, and be challenging for emergency responders to control.

### **Discussion**

Strong pressure gradients across the area, including the Sierra Nevada Mountains will produce various surges in these extremely dry (due to lee subsidence over the Sierra Nevada) and gusty north-easterly winds. Gusty winds elsewhere will have the same effect in fire maintenance and spread.

### **Expected Impacts**

Growth and spread of new and ongoing wildfires, bringing a risk to both property and life in some localised regions. Smoke could disrupt some transport, and reduce air quality.



## Mexico, south and east USA – See *Tropical Cyclone* section.

## Southern Mexico, Guatemala, Honduras, El Salvador and Nicaragua

### **Weather**

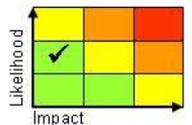
Heavy rain and strong northerly winds will affect this area late this week and into the weekend. 150-250mm of rain could fall in less than 24hrs on Friday and Saturday. In addition, strong to gale force northerly winds are probable for parts of southern Mexico. These winds will funnel through the Chivela Pass and out over the Gulf of Tehuantepec.

### **Discussion**

A cold surge behind the departing Zeta will bring a strong northerly flow across the Gulf of Mexico and will funnel through the Chivela Pass.

### **Expected Impacts**

Flash and riverine flooding, landslides in steeper terrain, as well as strong wind impacts. Also dangerous sea conditions over the Gulf of Tehuantepec.



## South America

### Eastern Brazil

### **Weather**

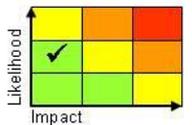
Intense showers and severe thunderstorms will develop at times across these areas over the course of the next week. These have the potential to produce 50-75mm of rain in just a few hours along with a threat of strong winds, large hail and frequent lightning.

### **Discussion**

A southward extension of the very warm, moist monsoon plume into northern Argentina will be engaged by several upper troughs through the next 7 days to produce high CAPE, marked wind shear and deep convection. There is the potential for a tropical or sub-tropical storm to develop early in the week off the Brazilian coastline

### **Expected Impacts**

Local flash flooding probable with a lower likelihood of damage from hail, wind and lightning in the area.



## Africa

Nil.

## Middle East

Nil.

## Asia

Vietnam, Laos and Cambodia – See *Tropical Cyclones* section.

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**Parts of Indonesia, Papua New Guinea and the Solomon Islands****Weather**

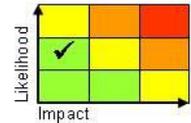
Slightly enhanced showers and thunderstorms are expected across this region in the coming week, some places could receive 25-75mm in 3-6 hours, and overall widely 50-100mm will fall across the region. This following recent anomalous rainfall in the last few weeks.

**Discussion**

La Nina makes showers and thunderstorms more likely to be frequent across the Maritime Continent. This potentially aided too by a slowly progressive MJO. Monthly anomalies across this region are generally positive too making impacts more likely than usual.

**Expected Impacts**

Localised flash flooding in places, and increased risk of landslides in higher terrain.

**Southern Bangladesh and western Myanmar****Weather**

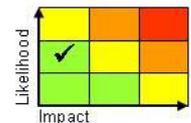
Heavy rain looks likely to develop across parts of this region from Friday through to Sunday. 50-100 mm is possible in places each day with 150-200 mm possible over the 3 days. However, there is still a good chance of the heaviest rain will remain just offshore.

**Discussion**

The remnants of typhoon Molave look set to emerge over the Bay of Bengal on Friday bringing an enhanced moisture source to the area. A potential associated low level depression, its depth and track uncertain, may help drive heavy showers inland.

**Expected Impacts**

Increased risk of localised flash flooding.

**Australasia**

**Papua New Guinea and the Solomon Islands** – See *Asia* section.

**Additional Information****Cox's Bazar, southeast Bangladesh**

Showers possible over the next few days but a reduced risk of torrential downpours compared to of late. However, from Friday there is an increased risk of heavy downpours and flash flooding across the area again (see above).

**Yemen**

As is typical for this time of year, most places will be dry throughout. There is the potential for heavy showers and thunderstorms to move westwards from the Arabian Sea into the island of Socotra from midweek with a lower chance of these reaching the coast in the far southeast of the country.

**Sudan/South Sudan**

The vast majority of Sudan will stay dry through the next 7 days, which is usual for this time of year. Daily showers and thunderstorms will continue across much of South Sudan. Heaviest and most frequent in the south with 50-75 mm possible in places over the next week.

**Issued at:** 270730 UTC

**Meteorologists:** Chris Bulmer / Chris Almond

**Global Guidance Unit**

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

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