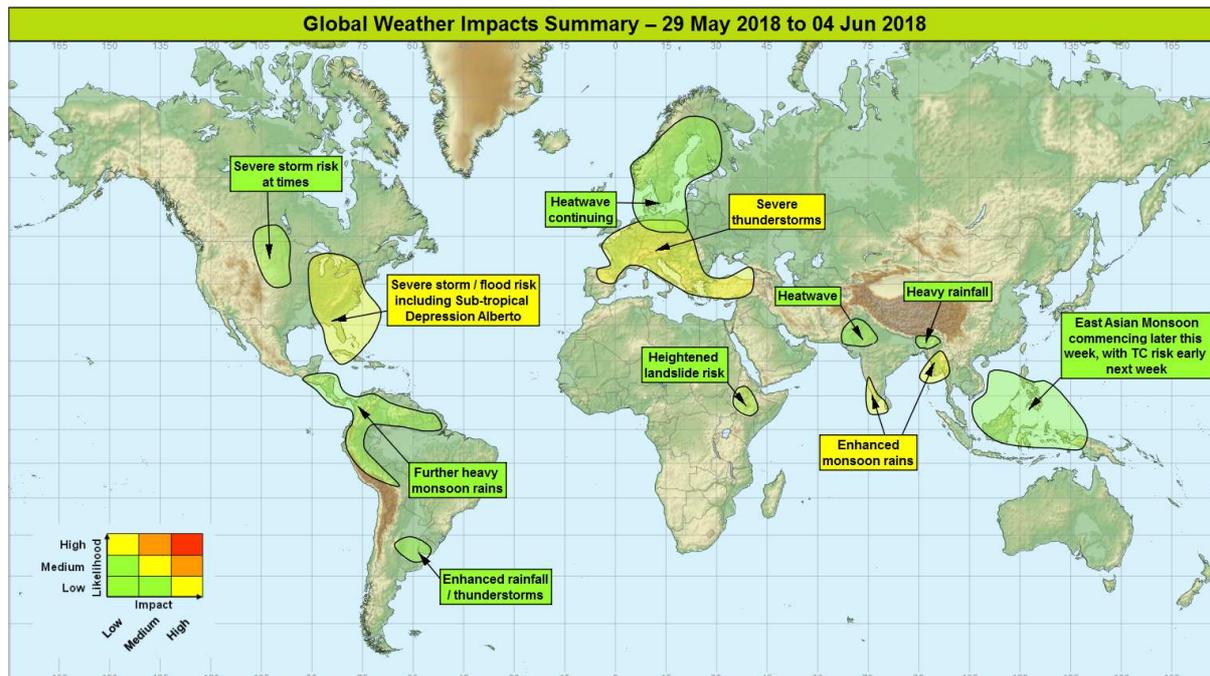


## Global Weather Impacts – Tuesday 29<sup>th</sup> May to Monday 4<sup>th</sup> June 2018

Issued on Tuesday 29<sup>th</sup> May 2018

### HEADLINES

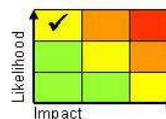
- Enhanced early monsoon rains SW India, Sri Lanka, Myanmar and perhaps southern Bangladesh.
- Severe storms and a weakening Subtropical storm Alberto in the eastern USA.
- Severe thunderstorms continuing across parts of continental Europe.



### DISCUSSION

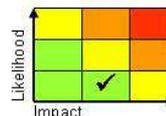
#### Tropical Cyclones

Subtropical Storm Alberto made landfall on the Florida Panhandle through Monday night, being the longest living Atlantic named storm in May since 1953. Alberto has already been downgraded to a Subtropical Depression, and will weaken further through the next few days as it track northwards towards across the USA the Great Lakes. For further impacts please see the North America section.



*The following areas are being monitored for possible development*

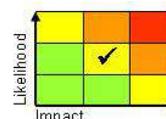
South China Sea and the Philippine Sea – There is a growing model signal for a tropical storm development early next week in the South China Sea, and perhaps the Philippine Sea. This is likely due to the movement of the MJO through Indonesia, which is expected to kick start the East Asian Monsoon by pushing the ITCZ northwards from Indonesia into the South China Sea.



#### Europe

Much of continental Europe – Further thunderstorms will occur across parts of continental Europe during the next week.

There will be day-to-day variations in the distribution, longevity and intensity of these storms, making it difficult to accurately predict the areas most at risk. Some of these storms will become complex MCS events and persist through the overnight periods.



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

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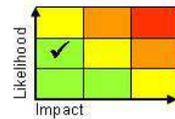
Associated large hail (similar to the event that has devastated vineyards in Bordeaux) and strong wind gusts are likely, with locally 50mm of rain falling in a few hours, leading to the risk of localised flash flooding.

There is a significant risk of storms impacting populated places, and possibly large cities, so there is a risk of significant impacts that could affect property, power and transport networks (including aviation).

Parts of NW Europe – Anomalously high temperatures are expected to continue across parts of Scandinavia, northern Germany and Poland in the coming week. Temperatures will continue to rise 10 Celsius above average, resulting in highs into the mid-high 20s and low 30s.

This persistent heat may impact on human and animal health, and may also impact upon agricultural activities.

Across Scandinavia the heat and prolonged dry spell has also led to a high risk of forest fires.



## North America

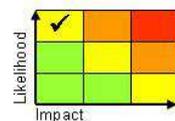
Eastern USA and far SE of Canada – The resident very warm plume will continue to be engaged by short wave upper troughs to produce further areas of severe thunderstorms.

The remains of Subtropical Storm Alberto will track northwards towards the Great Lakes through the next few days, injecting more heat and moisture into the atmosphere, to enhance the severity of these thunderstorms.

The severe storm activity will produce a risk of up to 125mm of rain in 24 hours, which would produce a risk of severe flash flooding (similar to the recent event in Maryland where a twice the average May rainfall fell within 2 hours). Large hail is also likely, with strong winds and a risk of tornadoes also possible.

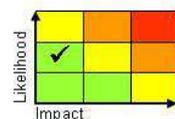
Chicago looks at risk of severe storm impacts on Wednesday and Thursday, with these severe storms likely to impact the aviation network through the next week.

The plume of heavy rainfall and severe storms will impact western Cuba and the western Bahamas through the next few days, and also Bermuda on Wednesday, with a risk of flash flooding in these areas.



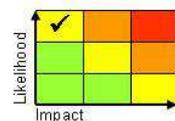
Central and northern plains of the USA and southern plains of Canada – Several spells of severe thunderstorms are likely in this part of North America through the next week as upper troughs engage a very warm plume. The main risk days will be today (Tuesday) and Wednesday, as well as this weekend.

The severe storms will produce a risk of flash flooding (100mm in 24 hours), large hail and tornadoes.

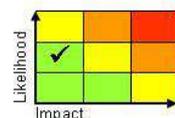


## Central America and Caribbean

Cuba, Bahamas and Bermuda – See North America section above.



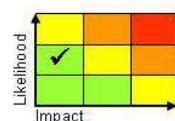
Guatemala, Honduras, Nicaragua, Costa Rica and Panama – See South America section



## South America

Colombia, Bolivia, Peru, Ecuador, Venezuela, Guyana, Suriname, French Guiana, and northern Brazil – The South American Monsoon rainfall remains strong from the Amazon northwards and down the Andes chain south into Bolivia through much of next week, with cumulative rainfall expected to be well above the climatological normal (up to 200mm in places).

This follows an already active monsoon season in the last few months, and as such



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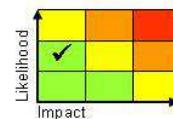
further heavy rains make severe flash flooding and landslides events more likely. If these events affect populated areas, significant life threatening impacts are likely.

These heavy rains will continue to extend north across the southern part of Central America where the rainy season is in an early stage. So landslides are less likely here, but flash flooding could impact populated areas and produce significant impacts here. There is a dam (Hidroituango) in the northwest of Colombia (Antioquia) that is close to being breached due to landslides blocking river flow diverting tunnels. This situation has resulted in 25,000 people being evacuated from the at risk downstream (Cauca River) region, in preparation for potential flooding if the dam is breached. However some recent reports suggest that the risk of this happening has reduced.

NE Argentina and Uruguay – The South Atlantic Convergence Zone looks to be active through the next 3 days across and around the River Plate basin.

Locally severe thunderstorms could produce in excess of 100 mm in a short period, hail, frequent lightning and gusty winds.

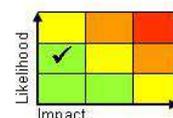
The storms could affect major cities including Buenos Aires and Montevideo. Flash flooding is possible, along with some disruption to travel through the affected region.



## Africa

Ethiopia – Over 30 people in the Oromia region of Ethiopia have died in a landslide that was triggered by further heavy rainfall.

The outlook for the coming week is for more heavier than climatology rains, and so the flood / landslide risk across Ethiopia continues to be heightened compared to normal.



## Middle East

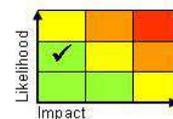
Nil Significant.

## Asia

Pakistan and northwest India – Typically the pre-monsoon heatwave results in heat stress fatalities across the Indian sub-continent.

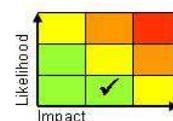
Temperatures are likely to reach the high 40s Celsius, with a low risk of breaking through 50 Celsius, across Pakistan and northwest India in the coming days.

This is not unusual, but this prolonged heatwave may again result in yet more heat stress related fatalities in this region. Temperatures should begin to moderate somewhat towards this weekend.



Bangladesh & NE India, N Myanmar – Further heavy pre-monsoon rain (up to 400 mm in places) is expected this week, caused by locally intense heavy showers and thunderstorms, mainly to the north of Dhaka.

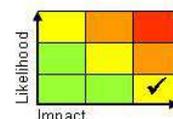
This will maintain the risk of flash flooding, although the risk of large hail and frequent lightning is lower than earlier in May due to the loss of the stronger high level flow. By this time in May the CAPE is more skinny, producing high rainfall type storms, but with less lightning and less chance of large hail.



The northern Maldives, southwest Sri Lanka, SW of India, Myanmar and possibly southern Bangladesh (including Cox's Bazar) – A pulse of very heavy early monsoon rainfall is expected across Myanmar and perhaps the far south of Bangladesh during the next few days, with up to 350mm possible. As we have seen in recent weeks the Cox's Bazar humanitarian camp is especially vulnerable to fairly modest amounts of rainfall. Should this enhanced rainfall affect the camp the impacts could become severe, with the potential for significant loss of life.

Heavy early monsoon rains also expected across SW India through the next 5 days, likely resulting in the Indian Summer Monsoon being officially declared in Kerala (SW India) in the next day or so, and this would be a few days earlier than climatology.

This will result in an increasing accumulations of rainfall, with further heavy rains (up to 500mm) in western Sri Lanka, where there has been fatal landslides and floods in recent weeks, so this risk remaining high through the coming week.



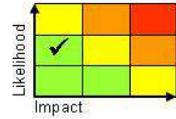
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South China Sea, NE Indonesia and the southern Philippines – This coming week is a significant period for the East Asian Monsoon evolution. So far the southwest phase has ceased to commence, but the movement of the MJO through Indonesia this week will induce a cross equatorial flow which will result in a dramatic northward jump of the ITCZ into the South China Sea and southern Philippines.

This could also help develop a tropical storm in the South China Sea early next week.



### **Australasia**

Nil Significant.

### **Additional Information**

Nil.

**Issued at:** 290445 Z **Meteorologist:** Paul Hutcheon

**Global Guidance Unit**

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