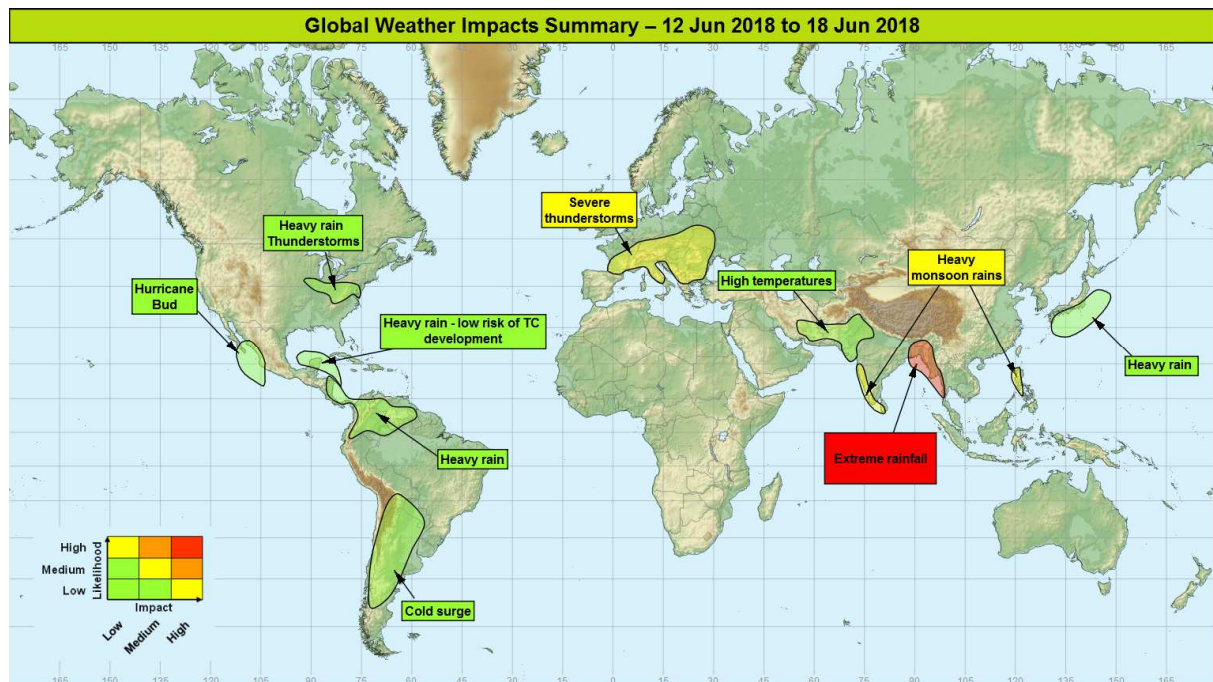


## Global Weather Impacts – Tuesday 12<sup>th</sup> to Monday 18<sup>th</sup> June 2018

Issued on Tuesday 12<sup>th</sup> June 2018

### HEADLINES

- The SW Asian Monsoon will bring copious amounts of rain to SE Bangladesh, NW Myanmar, W India and Sri Lanka. Severe impacts are likely across SE Bangladesh, particularly around Cox's Bazar.
- Severe thunderstorms continue over parts of Europe, though the focus should move gradually further east in the coming days.

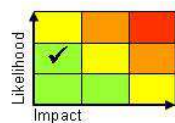


### DISCUSSION

#### Tropical Cyclones

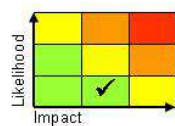
Hurricane Bud – was located near 17.6N 107.6W and was moving NW at 06KT. It has mean wind speeds of around 110kt (127mph) making it a top end Category Three Hurricane on the Saffir-Simpson Scale. Some modest weakening of the system is expected through today and into Wednesday. Further weakening is likely by Thursday, by which point it will probably be making landfall over Baja California on Thursday night or Friday as a tropical storm. NWP models are all in good agreement over the next few days, but spread increases towards the end of the week as some models show the potential for it to cross the southern tip of Baja California, perhaps affecting the popular tourist resorts around Cabo San Lucas.

The main impacts will come from heavy rain with 150-200mm likely to cause flash flooding in a typically arid part of world. This could potentially be record breaking rainfall for June. Tropical storms are not uncommon in this region, but are unusual in June with Bud likely to be the first June storm to affect Baja California since 1993.



#### Other areas being monitored for potential development:

An area of thunderstorms SE of the Yucatan Peninsula has a low probability (20%) of developing into a tropical storm. Even if this system does not undergo development, heavy rain and thunderstorms could bring flash-flooding to parts of Yucatan, including Cancun, from Thursday until the weekend.



This forecast may be amended at any time

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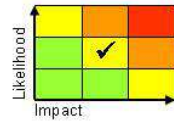
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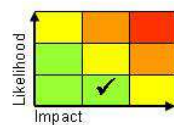
## Europe

Much of continental Europe – The in situ and major upper vortex across Europe is expected to be shunted away to the E and also relax somewhat as an upper ridge crests ENE into W Europe. Whilst further severe thunderstorms are likely for much of the period, the focus for these is expected to transfer E, then SE into central southern Europe and the Balkans by the weekend. Before this happens, further large, long-lived MCS storms which could lead to frequent lightning, flash flooding and large hail with the focus likely to be across S/E France, northern Alps and S Germany on today (Tuesday). 50-75mm of rain could fall in a few hours, with a risk of further flash flooding. Impacts are also likely at airports and across the airspace due to the longevity and slow moving nature of these storms; while hail may cause damage to crops, vehicles and some property.



## North America

Central/NE USA – A region of high moisture across the southern Great Lakes to Pennsylvania and West Virginia will be the focus for severe thunderstorms at times, with the most intense storms expected to the west of the Appalachian Mountains. Some of these storms could produce 50mm and locally up to 100 mm of rainfall in a short period, along with strong gusty winds and large hail, and a risk of tornadoes. Some flash flooding is possible, and there is the risk of some disruption to travel.



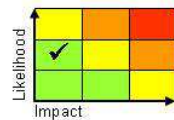
## Central America and Caribbean

Nicaragua, Costa Rica, Panama, Honduras, Belize – See South America section.

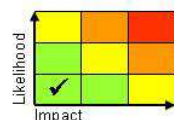
NE Mexico/Yucatan Peninsula – See tropical storm section.

## South America

Ecuador, Colombia, Venezuela, Guyana, N Brazil and parts of Central America – The South American Monsoon remains active with heavy rainfall expected from the Amazon northwards through much of next week, enhanced by African Easterly Waves. Some places may see 200-300 mm in the next 7 days, and this follows a spell of above average rainfall in the last few months. Indeed, Puerto Carreno in N Colombia received 88mm of rain on Monday, much of which fell in a relatively short period. Further heavy rain makes flash flooding and landslides more likely.



Argentina, Chile, Paraguay and Bolivia – A surge of air of Antarctic origins will bring an unusually cold spell to much of Argentina, Chile and SW parts of Bolivia (known as a Friagem). Temperatures will be around 5-10°C below average across much of the region, with frost affecting some locations where it is rarely seen leading to impacts to crops and livestock.



## Africa

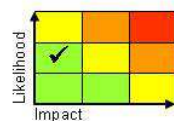
Nil Significant

## Middle East

Nil Significant

## Asia

Much of Pakistan, S Afghanistan, NW India, and E Iran – The pre-monsoon heat wave is expected to continue across much of this region for the next 5 days, but temperatures are likely to return closer to average next weekend. In some places, such as NW India, temperatures are likely to exceed 50°C at times (e.g. NW India).



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Western Myanmar and south-eastern Bangladesh (including Cox's Bazar) – South-westerly monsoon flow continues across the region, bringing a plume of high precipitable moisture NE which will lead to intense rainfall across Myanmar and parts of Bangladesh for the next 3-4 days. Whilst rainfall on Monday was not as heavy as on previous days, several place still saw in excess of 100mm. Over the next 4 days, cumulative rainfall could exceed 1000 mm in parts of northwest Myanmar and around 600-700mm near Cox's Bazar where in excess of half a million Rohingya refugees are living in huge humanitarian camps.

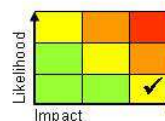


In addition the increased cloudiness and torrential rain means that temperatures will be noticeably cooler than usual, which could further impact the vulnerable population. This spell of intense rainfall will likely lead to flooding, landslides and extensive mud, with a significant threat to life. Thankfully, there are increasing signals that a break in the Monsoon is likely into the weekend, as SW'ly winds ease, and generally less moist air overspreads the region. This should allow for some recovery across the region.

SW India, SW Sri Lanka – The Monsoon is also likely to be very active across south-western India over the next 3-4 days. Further heavy rainfall is expected to bring as much as 300 to 500 mm of rainfall to parts of SW India; while Sri Lanka (already badly affected by pre-monsoonal storms and landslides) is likely to see a further 100 to 150 mm. Although impacts are likely to be less severe than those across Bangladesh and Myanmar, rainfall in these quantities will bring some locally severe flooding, a higher likelihood of landslides and potential loss of life. There are increasing signals that the monsoon may enter a break period towards the end of the week, resulting in a decrease in rainfall intensity, coverage and amounts.



Philippines – Strong south-westerly monsoon flow has developed across the South China Sea. This will continue to bring abundant moisture to western parts of Luzon Island where the capital Manila (home to around 15 million people) is located. Very heavy showers or thunderstorms are expected with the potential for some places to see back-building storms or shower training over the same locations leading to locally very high rainfall accumulations. Models signal as much as 400 to 600 mm across the region, and perhaps locally 1000 mm.



Similar rainfall amounts were recorded in September 2017 and are reported to have left 80% of Manila under water with around 15 deaths attributed to the event from flooding and related landslides.

On top of heavy rainfall in preceding days, Manila Airport reported a further 74mm on Monday, likely adding to the already considerable urban flooding (<http://newsinfo.inquirer.net/999520/flood-alert-list-of-flooded-areas-on-june-11-2018>)

Japan – the remnants of Maliski and associated high moisture region is expected to be engaged an upper trough in the next few days, with another surface low (non-tropical) developing. This is then likely to push ENE just to the S of Japan, but is still likely to 50-100mm of rain across the Greater Tokyo area. This may lead to localised flash-flooding and disruption to transport in the region.



## Australasia

Nil Significant

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**Additional Information**

Fuego Volcano, Guatemala – Following the recent eruption of the volcano there are currently ongoing international search & rescue and recovery operations in the region. Ash and debris falls from the eruption will potentially form deadly lahars if mobilised by heavy precipitation and pose a further threat to life. Over the coming week heavy showers and thunderstorms are likely to impact the region, with 10-25mm of precipitation falling in a short space of time and possibly 100-200mm of precipitation falling over the following week (this is fairly typical for the region).

FIFA Football World Cup – Opening Ceremony and first match, Russia v Saudi Arabia, Moscow, Thursday 14<sup>th</sup> June – The World Cup kicks off on Thursday 14<sup>th</sup> June at the Luzhniki Stadium in Moscow. The opening ceremony at 2 pm BST will be followed by the first match between hosts Russia and Saudi Arabia. The weather on the day looks likely to be warm, with maximum temperatures around 18 C, but with the chance of a shower. The tournament lasts until July 15<sup>th</sup> with 32 teams competing at 12 venues spread across 11 cities in the European part of Russia.

**Issued at:** 120500 Z    **Meteorologist:** Jason Kelly

**Global Guidance Unit**

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