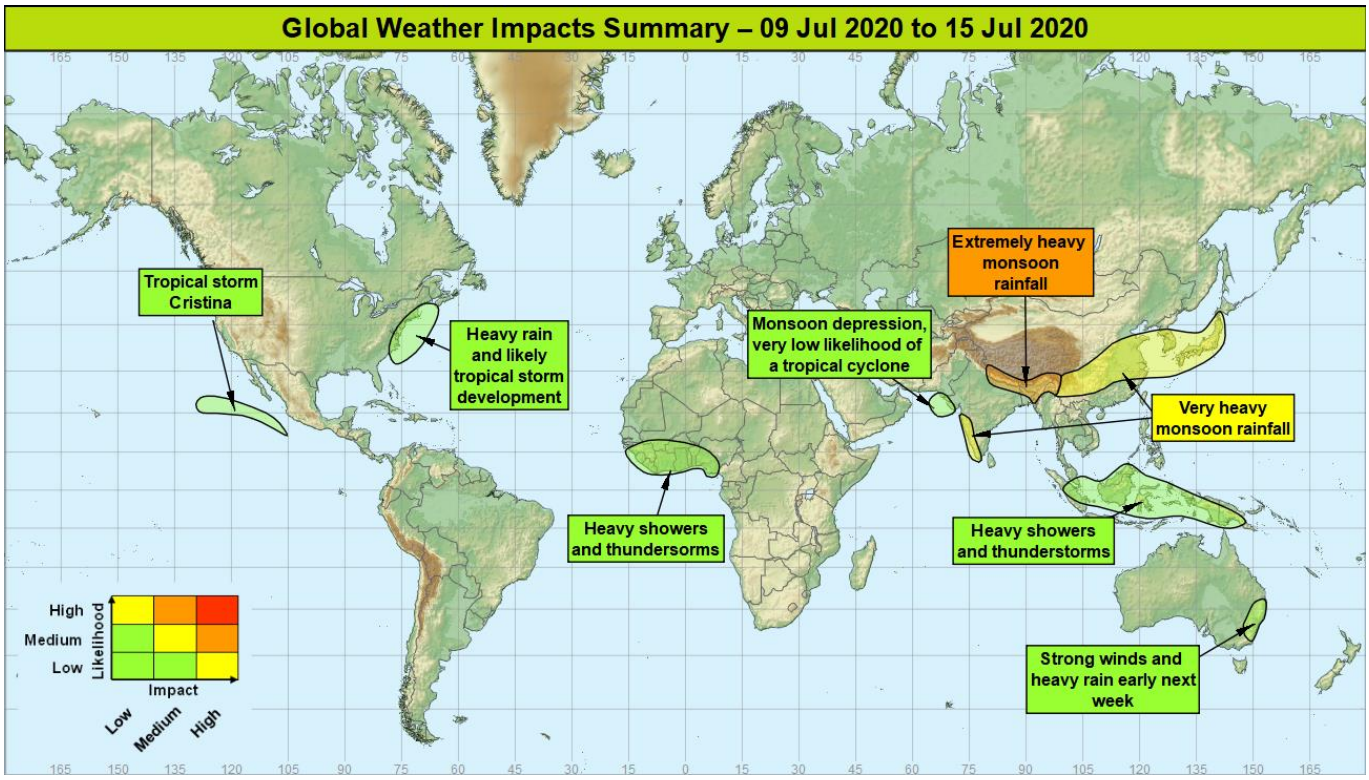
Daily Global Weather Impacts Assessment

Global Weather Impacts – Thursday 9th July to Wednesday 15th July 2020

Issued on Thursday 9th July 2020

HEADLINE

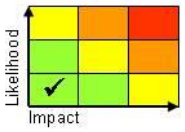
- Extremely heavy monsoon rainfall will continue in parts of South and East Asia.



DISCUSSION

Tropical Cyclones

Tropical Storm Cristina - Northeast Pacific



Weather

Tropical storm Cristina has formed over the open eastern Pacific, and conditions are favourable for some strengthening of this system. The NHC is predicting it will reach Hurricane status later today, however it is expected to track north-westwards, staying well offshore of Mexico.

Discussion

Several African Easterly Waves (AEWs) and the remnants thereof, are organising convection in this area, with environmental conditions favourable for the development of Cristina over the next few days. SSTs are approaching 30C and with light winds aloft, Cristina is expected to reach hurricane strength in the next 24 hours. Cristina will however, be steered north-westwards by the prominent sub-tropical ridge to the north and remain over the open ocean.

Expected Impacts

Nil.

This forecast may be amended at any time
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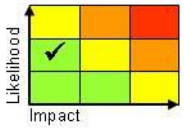
Met Office Daily Global Weather Impacts Assessment

The following areas are being monitored for possible formation:

Eastern USA, Western Atlantic



Weather

An elongated area of low pressure is located along the coast of northeastern South Carolina. This system is producing a large area of disorganized showers and thunderstorms over the adjacent Atlantic waters. The low is expected to move northeastward near or just offshore through today, and then turn north-northeastward and move along the mid-Atlantic coast on Friday. Environmental conditions are expected to be conducive for development, and a tropical or subtropical cyclone is likely to form within the next couple of days. Regardless of development, the low is expected to produce locally heavy rainfall that could cause some flash flooding.

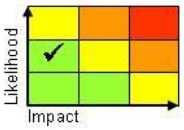
Discussion

Once the system moves out into the Atlantic Ocean, (most probably later today), high SSTs (over 29C which is 1-2C above normal) and a relatively low shear environment lend an opportunity for some development to take place. Should a cyclone form, then this would most likely track northwards close to the Carolinas.

Expected Impacts

The potential for flash flooding over coming days. Later in the week depending on the degree of development some rough sea may affect the east coast of USA.

Northern Indian Ocean, India / Pakistan border region



Weather

A monsoon depression, currently located along Gujarat coast in northwest India, will remain slow-moving and bring heavy rainfall to this region and Sindh Province in southern Pakistan. Up to 100mm of rain could fall in coastal parts today (150-300mm the July average in this region). This depression is expected to move a little further west, just offshore, and there is a very small risk it could develop into a tropical cyclone during this time and bring further heavy rainfall and stronger winds to the region, though the official forecast from the Indian Met. Dept. doesn't support this development. Regardless of whether a storm develops or not, there will still be large amounts of rain.

Discussion

Over recent days deep convection around this depression has brought heavy rainfall to the region, with this near stationary pattern likely to continue for the next few days. The depression is expected to move offshore along the monsoon front, with a small window for development over very warm seas (around 29C) before vertical wind shear increases and renders the environment unfavourable by the end of the week. Regardless, there will still be large amounts of rain.

Expected Impacts

Risk of flash flooding both from standing water and small water courses, especially if heavy precipitation effects an urban area.

Europe

Nil.

North America

Eastern USA – *See Tropical cyclones section*

Central America and Caribbean

Nil

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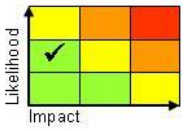
South America
Nil

Africa
Parts of West Africa



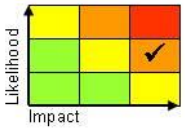
Weather
Heavy showers and thunderstorms are likely to be more frequent than usual through much of the next week across parts of West Africa, producing 50-100mm of rain in just a few hours in places. The heaviest rainfall is likely to affect the western part of this region (Sierra Leone, Guinea and Liberia) where up to 250mm of rain could accumulate (average rainfall in this region is 400-900mm).

Discussion
More active or more frequent African Easterly Waves are likely to affect West Africa through the coming week, producing above average rainfall in places, especially close to the Atlantic coastline.

Expected Impacts
Increased likelihood of flash flooding and landslides.

Middle East
Nil.

Asia
Northeast India, Nepal, northern Bangladesh, Bhutan, and northern Myanmar



Weather
Following recent extreme rainfall across the hills and mountains in this region, a further bout of extremely heavy monsoon rainfall and thunderstorms is expected through much of the next 7 days. Across low lying areas, further totals of 200-400mm are widely expected, with the hills and mountains again likely to see 800-1500mm or perhaps even more (this compares to the typical average at this time of year of 400-500mm across low lying regions, and 1000mm per month over the mountain sites). Recent rainfall has brought significant flooding across the region, and this additional rain will likely see river levels rise significantly once again in the coming week or two.

Discussion
A very active phase of the South Asian Monsoon will see an environment where high a PWAT airmass (>80mm), aided by SSTs approaching 30C (which is 1-2C above average) undergo dynamic and orographic ascent to maintain torrential rain and thunderstorms for many days to come. Another pulse of moisture associated with the tropical depression near the India/Pakistan border, will help generate further widespread torrential downpours as it spreads northeast, with the mountains seeing the highest totals. CAPE will mainly be skinny, leading to efficient ppn generation, but occasional mid-level dry intrusions may well allow lightning and large hail to be additional hazards. The longer term models suggest that rainfall amounts are likely to remain above average for several weeks in this region.

Expected Impacts
Flooding and widespread population displacement has already been widely reported and continued significant riverine flooding is expected to affect the region. There is also a very high threat of further landslides in the higher terrain. This will be closely monitored in the next couple of days as to whether this will be upgraded to RED (High-likelihood – High-Impact).

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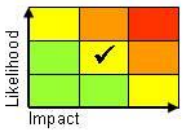
Central and eastern China, much of the Korean Peninsula and Japan



Weather

Following exceptional rainfall across these regions over recent days and weeks, the monsoon front that extends from central China to Japan is expected to remain very active through the coming days. Another 100-200mm of rain is expected widely across this region, with peak accumulations over the hills and mountains are likely to be in the region of 500-800mm across both China and Japan.

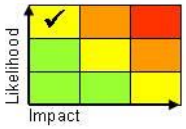
Discussion

The southerly winds associated with the monsoon are drawing very warm and moist flow across this region with extremely high values of PWAT (>75mm). This will generate further torrential downpours from rain, showers and thunderstorms, with the mountains seeing the highest totals. Despite this occurring relatively early in the monsoon season, flooding and widespread population displacement has already been widely reported.

Expected Impacts

Widespread surface and continued significant riverine flooding affecting the region, and likelihood of landslides in the higher terrain.

Western Ghats of India



Weather

A period of heavy monsoon rainfall (intense showers and thunderstorms) is expected through much of the next 7 days, with up to 400mm of rain falling (average July rainfall of 900-1000mm).

Discussion

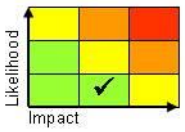
A strong and very moist SW'ly airflow will produce an active period of monsoon rainfall for this part of India through much of the next week.

Expected Impacts

Increased flood and landslide threat.

India / Pakistan border region – *See Tropical Cyclones section*

Malaysia, Indonesia and Papua New Guinea



Weather

Above average rainfall will continue across this region in the form of heavy showers and thunderstorms. These will be capable of locally bringing 50-100 mm of precipitation in a short duration, with some locations likely to see 150-250 mm through the coming days. Average precipitation accumulations at this time of year across this region is around 250 mm per month.

Discussion

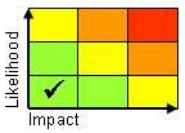
Strong and consistent signal from NWP for enhanced rainfall across this region no doubt aided by positive SST anomalies of 1 to 2C. Profiles in the area show large amounts of PWAT, and large skinny CAPE so heavy rainfall likely to be the most disruptive element.

Expected Impacts

An increased risk of flash flooding and landslides in regions where terrain is steep.

Australasia

Eastern Australia, including Sydney and Brisbane



Weather

Some very unsettled weather is likely across this part of Australia early next week, as a winter storm develops just offshore. Strong winds, with gusts of 40-50mph, along with heavy rain is likely from the low from late Monday. Some 100-150mm of rain is also likely, this well above the average amounts of rainfall for July in this area (normally 80-100mm across the area).

Discussion

A deep area of low pressure is signalled to develop off the east coast of New South Wales. The development is likely to draw warm, tropical air south into the system, leading to some heavy rainfall, as well as strong winds. The system is likely to affect these areas until mid-week, at which point it should start to clear.

Expected Impacts

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Heavy rain, flash-flooding over hillier interior areas. Rough seas.

Additional Information

Cox's Bazar, southeast Bangladesh

It is likely that the coming week will see above average monsoon heavy shower and thunderstorm activity. Around 250-300mm of rainfall is expected in total through this next 7 days, which is slightly above the weekly average in July in what is a very wet time of year for this region. So flash flooding and landslides are likely through the next week, but these impacts are fairly usual for peak monsoon season in Bangladesh.

Yemen

Throughout the coming 7 days showers or thunderstorms will be fairly isolated and fairly short lived (5-10mm of rainfall per day in places at most). So the threat of any significant weather impacts in Yemen through the next week is very low.

Issued at: 090705UTC **Meteorologist** Chris Almond / Paul Hutcheon **Global Guidance Unit**

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