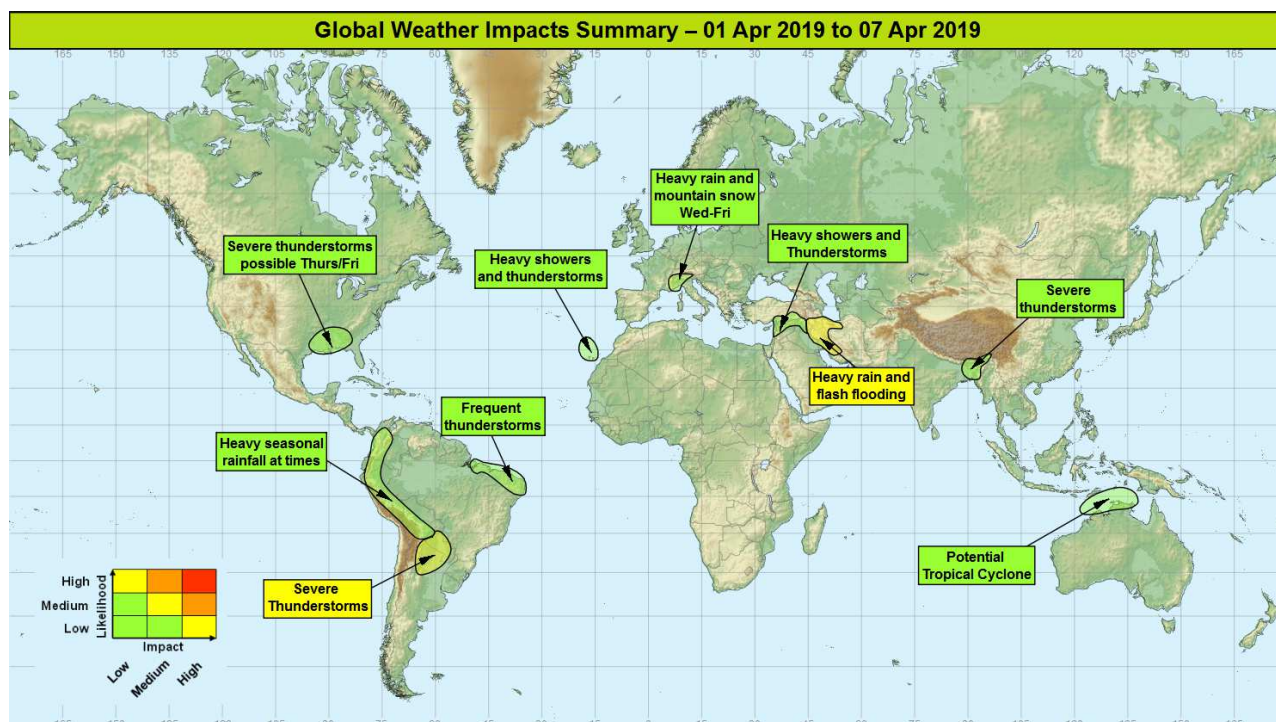


Global Weather Impacts – Monday 1st April to Sunday 7th April 2019Issued on Monday 1st April 2019**HEADLINES**

- Heavy rain and thunderstorms over parts of the Middle East.
- Severe thunderstorms across northern Argentina and Paraguay.
- Heavy rain and mountain snow for southeast France and northwest Italy from Wednesday.

**DISCUSSION****Tropical Cyclones**

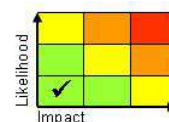
There are presently no active tropical cyclones.

The following area is being monitored for potential tropical cyclone formation:**Northern Australia (Arafura and Timor Sea)****Weather**

A tropical low looks likely to form near the coast of the Northern Territory over the coming days and track westwards. This system would have the potential to intensify into a tropical cyclone later next week but this aspect is currently uncertain. At this stage, at the very least a spell of very heavy rain looks likely for the far north of the Northern Territory (including Darwin) and should it intensify strong or even damaging winds are possible.

Discussion

As a southern portion of an equatorial Rossby wave will continue east over an area of high SSTs and low wind shear bringing the potential for a tropical cyclone to spin up later this week. There remains a significant model spread as to whether the forecast low will intensify. Historically, EC has been keenest to develop a tropical cyclone towards the end of the week or over the weekend.

Expected Impacts

This forecast may be amended at any time

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Potential for flash flooding to bring travel disruption and damage to property. In addition, should a strong tropical cyclone develop, wind damage would be expected, with damage to buildings and interruptions to power supplies potential impacts.

Europe

Northern Italy, southern Switzerland and the far southeast of France

Weather

Heavy rain and mountain snow will affect the region from Wednesday through to Friday. The heaviest precipitation is expected to be across northwest Italy, with up to 250 mm of rain likely to fall in a 36-48 hour period. Significant falls of snow (perhaps up to 2 metres) above 1000 metres above sea level are likely in the Italian Alps and up to 1 metre possible for parts of the French and Swiss Alps too.

Discussion

A cold front will sink southeast across western Europe by midweek, becoming increasingly active as an upper trough extends and disrupts, ultimately forming an upper vortex across southwestern Europe. A high WBPT plume will be drawn up ahead of the cold front, with this, along with forcing from the upper vortex, producing very heavy precipitation along the southern facing slopes of the Alps. The exact amount of snowfall will be difficult to estimate due to differences in the WBFL within the heavy precipitation plume. There is also significant uncertainty regarding the timing and location of the upper trough disruption, with differences between all models.

Expected Impacts

Surface water flooding seems likely in low-lying areas, with deep fresh snow leading to a risk of avalanche at higher levels. The combination of flooding and heavy snowfall at higher elevations is likely to lead to disruption to travel in the region.



Canary Islands and Madeira

Weather

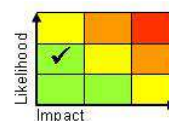
Heavy showers and thunderstorms are expected to affect these islands until Wednesday. Of the islands Tenerife has the greatest chance of seeing the heaviest downpours. 40-80 mm of rain could fall in a 24-hour period. Additional hazards will be hail and frequent lightning. The April average monthly rainfall for the region is between 10 and 30 mm.

Discussion

An upper vortex continues to drift south across the area, increasingly destabilising the airmass, allowing diurnal heavy showers and thunderstorms to widely develop. Convection should ease across the area into Thursday as the upper vortex relaxes and clears.

Expected Impacts

Flash flooding is possible causing disruption to travel and damage to property. Landsides could potentially be triggered in the mountainous terrain. Thunderstorms/lightning may disrupt aviation activities.



North America

Southern USA

Weather

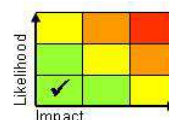
Heavy showers and potentially severe thunderstorms are possible across southern parts of the USA on Thursday and Friday. Intense downpours of rain could bring as much as 50-100 mm in places over the course of several hours. Large hail, strong wind gusts and potential tornadic outbreaks could be additional hazards.

Discussion

A short wave upper trough running east across southern parts of the USA looks likely to engage a plume of high WBPT air drawn north from the Gulf of Mexico during Thursday. There are still significant spatial and temporal differences between models but within a >17 °C 850 hPa WBPT plume there is potential for severe organised convection.

Expected Impacts

Increased potential for flash flooding. Hail and/or strong winds could cause damage to structures. Some disruption to transport, particularly aviation, is likely.



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Central America and Caribbean

Nil significant.

South America

Northern Argentina and Paraguay

Weather

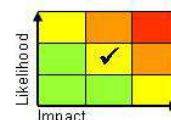
During the coming week heavy showers and severe thunderstorms are expected to develop across parts of northern Argentina and Paraguay. Each day in the worst affected areas as much as 100-150 mm of rain could fall which is roughly equivalent to a month's worth of rainfall. Depending on the exact location of where the most severe thunderstorms develop, 300-400 mm of rain is possible over a few days. Lightning, large hail and strong gusty winds associated with thunderstorms will be additional hazards. There may be a slight lull in activity during Wednesday and Thursday.

Discussion

An extrusion of the tropical air will become engaged by a succession of troughs in the subtropical jet extending over central parts of South America through this week. This will aid the development of organised severe thunderstorms including the likelihood of MCSs.

Expected Impacts

Very heavy rainfall increases the chances of flash flooding as well as landslides in more mountainous terrain disrupting transport, flooding property and posing a danger to life. Parts of Paraguay could be more sensitive than usual with reports of flooding during March. Over the last 30 days a large proportion of Paraguay and parts of northern Argentina have seen more than double of their average rainfall. Lightning strikes, large hail and the potential for tornadoes will pose additional risks to lives and infrastructure.



Colombia, Ecuador, Peru and Bolivia

Weather

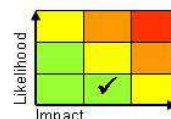
Heavy showers and thunderstorms are expected to be more numerous than normal along the northern Andes at times through the next week, especially from Monday to Wednesday. Rainfall accumulations will vary by location due to the showery nature of the rainfall but locally a further 200-300 mm of rain is possible in a few locations over the next week.

Discussion

Despite the South American monsoon undergoing retreat across Brazil, abundant tropical moisture exists across the northern Andes to generate further heavy showers and thunderstorms. The peak of activity this week will likely be influenced by an upper trough disruption just to the southwest of Peru. The reason for the prolonged nature of this above average rainfall is less clear since SST anomalies along the Peru to Ecuador coastline are now widely below average.

Expected Impacts

Flash flooding and landslides remain an ongoing threat in the mountainous areas, as well as downstream river flooding. With much of this region preconditioned by previous rainfall, further heavy rain will produce some additional impacts. Over recent weeks there have been reports of significant damage to infrastructure from flooding, with homes, bridges and roads destroyed.



Northeast Brazil

Weather

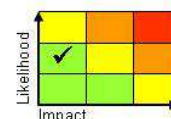
A persistent feed of thunderstorms into this region could see some areas receiving 200-300mm over the course of the next week, equating to around a month's worth of rainfall for the area.

Discussion

Forecast precipitation anomalies over the next week reveal a southward shifted ITCZ, leading to a persistent feed of thunderstorms onto the coast of NE Brazil.

Expected Impacts

Increased risk of flash flooding in this region, with potential damage to property and risk to life.



Africa

Nil significant.

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Middle East**Western Iran and far northeast of Iraq****Weather**

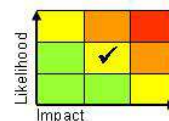
Heavy showers and thunderstorms will continue over the next couple of days. Many places are likely to receive at least 50 mm of rain during this period, but locally 150-200 mm is possible and would be roughly equivalent to twice the average monthly rainfall for the time of year. Frequent lightning will be an additional hazard during Monday. From Tuesday heavy showers and thunderstorms will become much more isolated.

Discussion

An upper vortex and coincident surface low continues to move east with a high WBPT plume aiding the development of severe convection now moving into Iran. Here, multicell convection and MCS are likely with convection long lived. Early next week the upper vortex begins to fill and move away east, with conditions gradually becoming quieter across the region.

Expected Impacts

Flash flooding is likely along with the potential for landslides in mountainous areas. Strong gusty winds and possible large hail associated with thunderstorms could cause damage to temporary or poorly built structures and are likely to lead to lifted dust in desert regions.

**Southeast Turkey, Syria, Iraq and Lebanon****Weather**

Compared to recent days heavy showers and thunderstorms will become less frequent across the area. However, during the coming days daily thunderstorms are likely to develop which could produce heavy rain in places (potential for 30-60 mm over several hours). Activity should tend to ease further from Wednesday.

Discussion

As the large scale upper vortex moves away to the east convection will become increasingly dictated by the diurnal cycle although SSTs will be sufficient to maintain a feed of showers and CB activity into the coast of Lebanon and Syria. Limited vertical wind shear and skinny CAPE suggests cells are likely to be isolated but slow-moving potential producing large amounts of rainfall.

Expected Impacts

There remains a chance of flash flooding and landslides in mountainous areas. Damage to temporary or poorly built structures is possible.

**Asia****Bangladesh and northeast India****Weather**

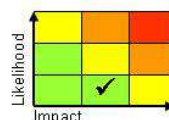
There is an increased likelihood of severe thunderstorms developing across this region during this week, which as well as producing large amounts of rainfall in a short space of time, will bring frequent lightning and a risk of large hail and tornadoes. The heaviest showers currently look most likely to be today (Monday) and on Tuesday.

Discussion

We are approaching peak tornado season across this part of the world, and with very warm moist air in place a broad upper trough with embedded shortwave elements is expected to move across the region leading to increased potential for severe storms to develop. Forecast profiles exhibit large amounts of CAPE and strong shear, strong outflow aloft and potential for supercells and tornadoes.

Expected Impacts

Should these storms develop, flash flooding is a possibility, along with lightning/large hail/strong gusty winds causing a risk to life, plus damage to property and infrastructure.

**Australasia**

Northern Australia – See *Tropical Cyclones* section.

Additional information

Nil.

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Daily Global Weather Impacts Assessment

Issued at: 010820 UTC **Meteorologist:** Chris Bulmer

Global Guidance Unit

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