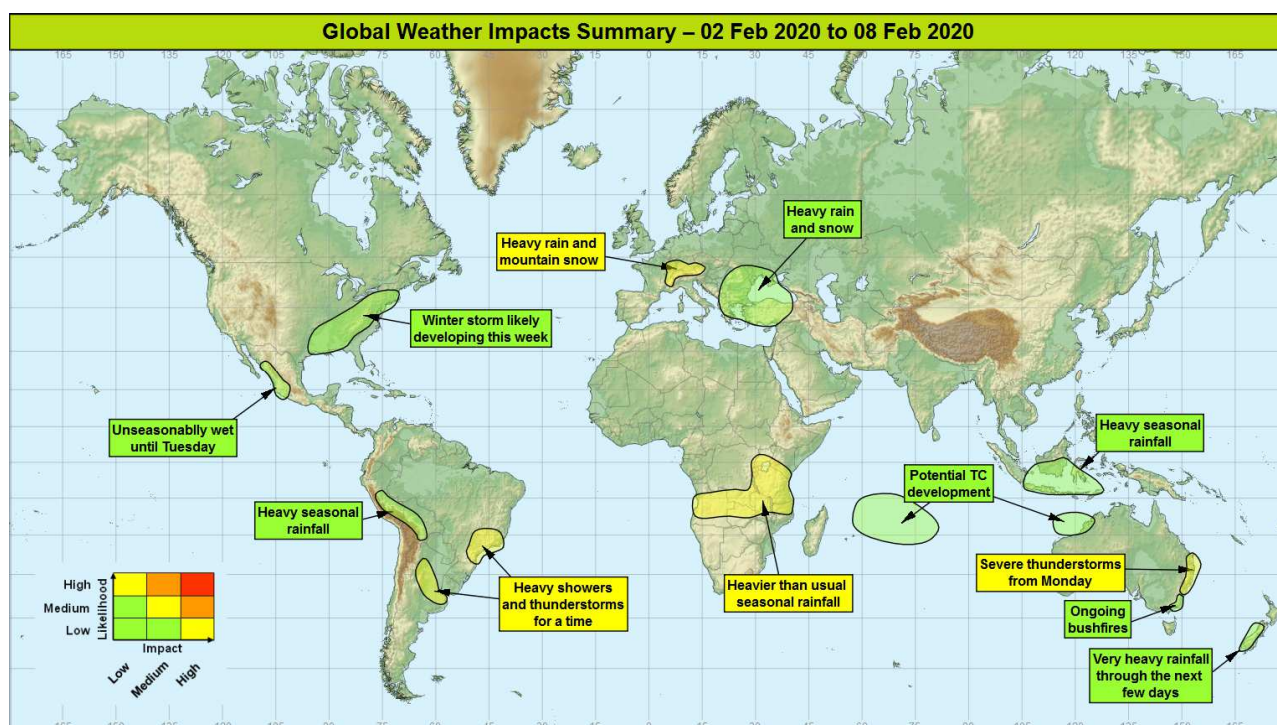


Global Weather Impacts – Sunday 2nd to Saturday 8th February 2020

Issued on Sunday 2nd February 2020

HEADLINES

- Heavy rain and mountain snowfall in central Europe.
- Severe thunderstorms for a time in parts of South America and eastern Australia.
- Continued heavy seasonal rainfall for parts of central and eastern Africa.



DISCUSSION

Tropical Cyclones

There are currently no active tropical storms, and no areas are being monitored for development

The following areas are being monitored for potential tropical storm development:

Southwest Indian Ocean

Weather

There remains the potential for a couple of tropical cyclones to develop in the Indian Ocean this week. Currently there is no indication that any system will directly impact land.

Discussion

High SST temperatures and low shear is conducive to the development of a tropical storm across the south-western Indian Ocean in the coming week. Models differ as to where any development may be, but presently none suggest a threat to land.

Expected Impacts

Nil



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Northwestern Australia

Weather

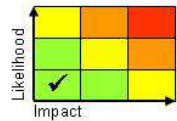
There is a signal for the potential development of a tropical low close to the Kimberley Coast of northwestern Australia through the early part of this week, which may subsequently intensify into a tropical storm.

Discussion

Growing signal from models for this development, although its likely proximity to the coast makes it uncertain as to whether this system is able to strengthen into a tropical storm.

Expected Impacts

Threat of very heavy rainfall along the coast of northwestern Australia. Lower likelihood of damaging winds. As this area is sparsely populated impacts are likely to be low.



Europe

Eastern France, Switzerland, southern Germany and parts of Austria

Weather

Turning increasingly unsettled across the region over the next few days, with repeated spells of heavy rainfall. Conditions will turn colder and more showery during Tuesday, before becoming mostly dry by Wednesday. Around 50-100 mm of rain is likely to have fallen widely by midweek, with up to 200 mm in parts of the Alps, which will fall as snow above 2000 metres above sea level. The snow will fall to increasingly lower altitudes from Tuesday, with low altitudes (500 metres above sea level) seeing snowfall by then.

Discussion

A broad warm conveyor will continue to feed pulses of heavy rain into central parts of Europe, especially Alpine regions over the next few days. Strong orographic modulation of the rainfall will result in some very large accumulations over high ground. Initially high freezing levels could allow significant snowmelt to occur across lower elevations of the Alps. Early next week a marked upper trough will drive the frontal systems south, allowing much colder air to sweep south, turning the increasingly showery precip wintry to increasingly lower levels.

Expected Impacts

Threat of flooding due to heavy rainfall and snow melt, with a heightened risk of avalanche at higher elevations. Increasing threat of disruption due to heavy snow at lower elevations towards midweek.



Southeast Europe

Weather

Potential for a multi-hazard severe weather event across large parts of southeast Europe later this coming week. In the south, heavy rain, thunderstorms and strong winds will be the main hazards with 50-100mm of rain falling in places. Further north, heavy snow is expected with 10-20 cm falling quite widely, perhaps up to 50 cm in a few locations. Snow will be mainly across Romania and Ukraine at first, but will become more widespread, eventually affecting parts of mainland Greece by the end of the week.

Discussion

A major trough extension will take place across central and eastern Europe next week. The trough will interact with a frontal wave over central Europe allowing cyclogenesis to take place, with the resultant system then moving SE into Greece around midweek. Snow will fall on the northern flank of the system and then more widely to the rear of the cold front, with snow possible to low-level in northern Greece by the end of the week.

Expected Impacts

Widespread disruption to travel is possible either due to flash flooding or heavy snowfall. Some interruptions to power supplies are also possible.



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North America

Southeastern and eastern USA

Weather

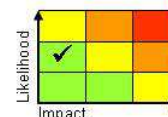
There is the potential for a significant winter storm to develop later this week across the south and east of the USA, producing heavy rain and severe thunderstorms, with the possibility of heavy snow and/or freezing rain on the northern fringes of this zone. 50-100 mm of rain is expected to fall widely with the possibility of 150 mm in parts of the southern states. Heavy snow (15-30 cm) is possible later in the week close to major urban areas in the northeast.

Discussion

Good model agreement for a marked long wave upper trough to push east across the Rockies, engaging a warming plume across southern and eastern parts of the USA to develop a marked winter storm. Forecast profiles support the development of severe thunderstorms in the broad warm sector of system. Moist profiles with low CAPE suggest storms will be capable of producing high rainfall rates, although with large amounts of low-level wind shear, a few tornadoes are also possible. On the northern flank of the system warm air aloft, with a marked cold undercut leads to a significant freezing rain risk.

Expected Impacts

Flash flooding looks likely, with a lower threat of severe storm impacts (frequent lightning and tornadoes). Northern fringes will be at threat of power and transport network disruption from heavy snow and freezing rain.



Central America

Parts of western Mexico

Weather

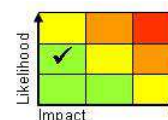
A period of unseasonably wet weather is expected from Sunday to Tuesday, with up to 100-150 mm of rain expected in places where the average rainfall is 10-20 mm.

Discussion

A low latitude upper trough will engage a warming plume to produce enhanced shower and thunderstorm activity across this part of western Mexico that is usually dry at this time of year.

Expected Impacts

Out of season flash flooding is possible in places.



South America

Southeast Brazil, southern Uruguay and northern Argentina

Weather

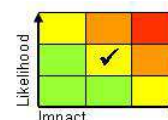
Heavy showers and thunderstorms will affect parts of southeast Brazil from Sunday through the middle of the week, with severe thunderstorms likely developing across parts of northern Argentina and Uruguay from Tuesday. In addition to the potential for up to 100 mm of rain fall in 6-12 hours these storms will produce additional hazards of hail, strong winds and frequent lightning.

Discussion

One pulse of the South Atlantic Convergence Zone (SACZ) will bring an enhanced thunderstorm threat to southeastern Brazil, while a second SACZ pulse will introduce a severe storm threat further south from Tuesday.

Expected Impacts

Heightened threat of flash flooding and landslides, including across some of densely populated regions, with cities such as Sao Paulo, Rio de Janeiro, Montevideo and Buenos Aires potentially impacted.



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Peru and Bolivia

Weather

Heavier than usual shower and thunderstorm activity is expected to affect this region through much of the coming week, bringing up to 200-300 mm of rain (up to twice the February average) in places.

Discussion

Good model agreement for this region seeing heavier than average rainfall through the coming week.

Expected Impacts

Increased threat of flash flooding and landslides, particularly in mountainous terrain.



Africa

Central and East Africa

Weather

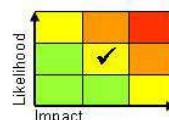
More widespread / frequent heavy showers and thunderstorms are expected to continue across the region through the coming week. Rainfall will vary significantly across relatively small distances but there is the potential for locally 50-150 mm to fall in a 24 hours period, with up to 200-300 mm accumulating through the next week in places. This would result in many places seeing the average February rainfall in just a week.

Discussion

High SSTs in the western Indian Ocean continue to enhance convection along the ITCZ, bringing above-average rainfall to the region. This region has been very wet in recent weeks and months, with multiple reports of ongoing severe flooding.

Expected Impacts

Rainfall is likely to cause some severe flash flooding with some significant river flooding also possible. There will also be a heightened risk of landslides in areas where the terrain is steep.



Middle East

Turkey – see *Europe* section

Asia

Indonesia

Weather

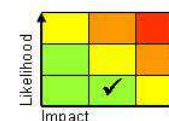
Pulses of enhanced showers and thunderstorms are expected across this region during the coming week. During this period up to 150-250 mm of rain is expected fall in some spots, with up to 50-100 mm falling in just 6-12 hours in places. This is not untypical for the region, but this follows recent weeks where it has been very wet.

Discussion

The main driver of the wetter than average signal looks to be an enhanced NE'ly monsoon phase across the South China Sea that enhances the convergence along the ITCZ that lies across much of Indonesia.

Expected Impacts

Flash flooding and a heightened risk of landslides are the principle hazards from this event.



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Australasia

Eastern Australia

Weather

Intense showers and severe thunderstorms are expected to develop across the region this week. Initially, the most intense rainfall will be confined to southeast Queensland, around Brisbane. However later in the week heavy rain is likely to become more widespread, affecting larger parts of New South Wales, possibly as far south as Sydney. These storms will be capable of producing up to 100 mm of rain in just 6 hours with 5 day accumulations of up to 250 mm which is around the average for the whole of February. In addition to the intense rainfall, frequent lightning, large hail and very strong winds are possible.

Discussion

A succession of upper troughs will engage the tropical plume across this part of Queensland and eventually New South Wales, producing vigorous deep convection that will pose a threat of severe storms.

Expected Impacts

Flash flooding along with hail and wind damage are likely. Aviation and power networks could be disrupted by lightning damage. Brisbane and the Gold Coast look likely to be affected.



New South Wales, Australian Capital Territory, Victoria

Weather

Temperatures will reduce during Sunday and remain suppressed until the middle of the coming week, limiting the potential for new wildfires to develop. Overall, BoM have much lower fire danger ratings, mostly low-moderate over the coming days, with only a few locations having been assessed as having a high risk, mainly on Sunday.

Discussion

Cold front will clear northeast during Sunday introducing much cooler conditions, although winds will remain rather strong until pressure builds more strongly north from Tuesday. Later in the week, temperatures could rise again but this will be accompanied by higher levels of moisture being drawn in off the Pacific Ocean leading to a risk of showers, especially across eastern parts of NSW. Overall fire danger ratings will be lower than in the past few days.

Expected Impacts

Existing fires will continue to produce fine particulates and contribute to localised areas of very poor or hazardous air quality.



South Island, New Zealand

Weather

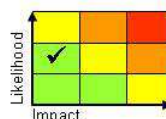
Intense rainfall is expected through the next 3 or 4 days, producing up to 500 mm of rainfall, perhaps more on high ground. The west of South Island is a wet place, but this is usually the drier time of the year and so this intense rainfall is quite unusual for the time of year. It should become much drier from midweek.

Discussion

An active cold front will remain slow moving for an extended period of time, resulting in unusually heavy rainfall in this region. Significant orographic enhancement is expected across the high ground due to the strong low level northwesterly flow.

Expected Impacts

Flash flooding looks likely, with an enhanced threat of river flooding and landslides.



Additional Information

Nil.

Issued at: 020320UTC

Meteorologists: Brent Walker / Paul Hutcheon

Global Guidance Unit

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