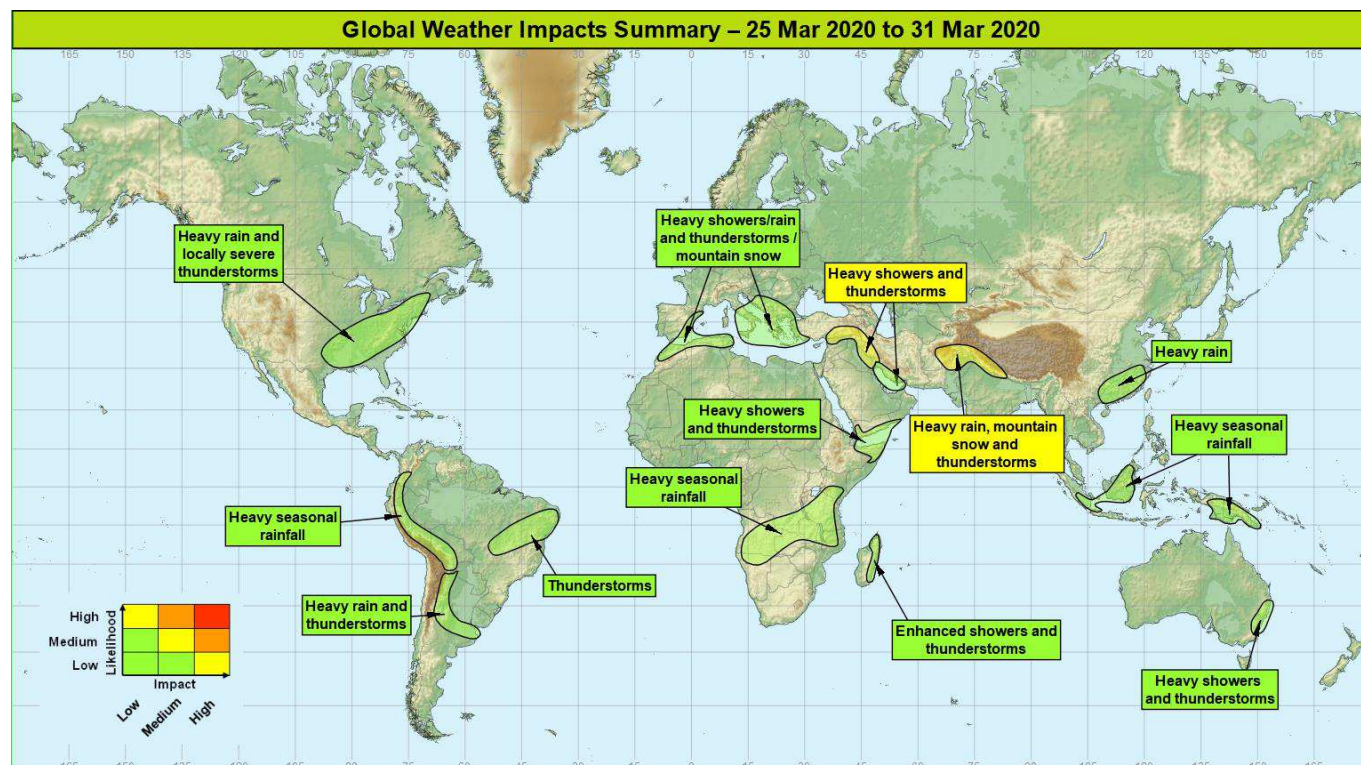


Global Weather Impacts – Wednesday 25th to Tuesday 31st March 2020

Issued on Wednesday 25th March 2020

HEADLINES

- Heavy rain, mountain snow & thunderstorms across Afghanistan, Pakistan, and northwest India.
- Heavy showers and thunderstorms across Yemen and Somalia.
- Further bouts of very unsettled weather for the Middle East.



DISCUSSION

Tropical Cyclones

There are currently no named tropical cyclones expected to affect land over the next seven days.

Europe

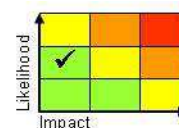
Eastern and southern Spain, Morocco, the north of Algeria and Tunisia. South-east Europe including Italy, The Balkans, Greece and Turkey.

Weather

Remaining unsettled across the region with further areas of rain, thunderstorms and locally strong winds transferring east. The heaviest rain will be tied to mountainous regions, with 50-100mm falling over the coming week, and perhaps 150-200mm across parts of Greece. Across parts of the Balkans some heavy snowfall is likely through today (Wednesday), with a further 15 to 25 cm possible in some mountainous areas. Strong winds will lift dust across North Africa, with this potentially being drawn into southern Europe midweek.

Discussion

A strong sub-tropical jet is signalled to engage and elevated plume of high theta-W, this then resulting in the intensification of the area of low pressure to the north of Libya. As the low drifts N, it will maintain multiple hazards across the highlighted areas, though milder air being drawn N should preclude further sig snow from tomorrow on.



This forecast may be amended at any time

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Expected Impacts

Flash and some isolated fluvial flooding both likely, along with an enhanced risk of landslides in areas where terrain is steep. Snowfall is likely to disrupt travel and possibly power supplies. Dust will reduce air quality.

South-east Turkey – See *Middle East* section.

North America
Southern and Eastern USA
Weather

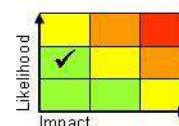
An area of low pressure is signalled to develop to the lee of the Rockies through today before pushing east across the central and southern Plains, before exiting the Atlantic coastline late today (Wednesday). Heavy showers/thunderstorms may bring 25-50mm of precipitation in a short duration, as well as large hail and strong winds. A further disturbance is likely to take a similar path this weekend, though severe convection (thunderstorms/tornadic risk) may be a greater threat with this system.

Discussion

A major upper trough off the coast of the Pacific Northwest is signalled to shed a jetstreak through today, which will help develop, then shift a shallow low pressure quickly E through the day. Some heavy rain/showers are likely with this system. As the major upper trough slowly extends ESE toward the end of the week and into the weekend, an environment more conducive to severe convection may well develop, bringing the risk of tornadoes to the southern Plains.

Expected Impacts

Flash flooding and fluvial flooding is expected. Large hail, frequent lightning, strong winds and tornadoes may damage property, infrastructure and some crops.

**Central America**

Nil significant.

South America
Southern Colombia, Ecuador, Peru, south-west Bolivia
Weather

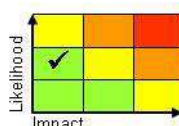
Enhanced shower and thunderstorm activity is signalled to continue across much of the Northern Andes through the coming week. A further 150-250mm of rainfall is signalled to fall across the area. This represents locally more than double the average rainfall for parts of this region which have been very wet over recent weeks.

Discussion

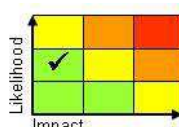
Convective activity is forecast to remain well above average across the Northern Andes over the next week. The main driver for this appears to be above normal SSTs, as well as at a distance influences from a trough well to the SW of the area.

Expected Impacts

Continued threat of landslides and flash flooding in the steep terrain of the Northern Andes.

**Argentina****Weather**

Thunderstorms will move slowly north across this region over the next few days. These will bring heavy rain to the region, with locally 75-150mm of rainfall expected, often in a short duration. The odd tornado also possible, although these are unlikely to be severe.

Discussion

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A shortwave upper trough will engage a high WBPT plume across the region and result the formation of some fairly active thunderstorms. These will form in a low CAPE but high Precipitable Water (PWAT) environment meaning heavy rainfall will likely be the primary hazard; however vertical shear and a low Lifting Condensation Level (LCL) may allow the odd weak tornado to form.

Expected Impacts

Some flash flooding and fluvial flooding, with a low risk of some highly localised damage from the odd weak tornado.

Eastern Brazil

Weather

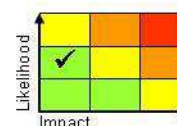
Continued active shower and thunderstorms across this region up to the weekend. 25-50mm of precipitation will widely fall, with peaks of 100-200mm likely in some spots. This is more than the average rainfall for March in these areas.

Discussion

The South Atlantic Convergence Zone (SACZ) will transfer north with the monsoon plume withdrawing simultaneously. The plume will be engaged at distance by a weak trough extending northwestwards from the tropical South Atlantic, into the weekend this trough loses influence with an upper high becoming established and shower and thunderstorm activity returning to near normal levels.

Expected Impacts

Flash flooding and fluvial flooding is expected, with an enhanced risk of landslides in areas where terrain is steep.



Africa

Namibia, southeast Angola, Zambia, DRC, Malawi, northwest Mozambique, Tanzania, and Kenya

Weather

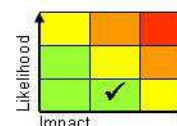
Scattered heavy showers and thunderstorms are expected to affect a broad region of central southern Africa, with a reduction in activity signalled over the weekend and into next week. These could locally produce 50-75 mm of rainfall in a few hours, with a few locations likely to receive 150-200 mm over the next seven days. The heaviest rainfall is expected to be along a line from southwest Angola to the Tanzania/Kenya border.

Discussion

A fairly weak MJO is now moving across the central Indian Ocean, however its influence will still lead to enhanced shower and thunderstorm activity across much of tropical Africa. As the MJO moves into the Maritime Continent by the coming weekend, shower and thunderstorm activity over Africa is expected to return to near normal, perhaps even be slightly suppressed.

Expected Impacts

Increased risk of surface water and riverine flooding from heavy rainfall, particularly in southern Tanzania where impacts from flooding have already been reported, but also in some catchments in Angola.



Eastern Madagascar

Weather

Shower and thunderstorm activity will remain enhanced across eastern Madagascar through the coming week. Locally 75-150mm of precipitation could fall across the mountains in this region; although this is heavier than normal it is not exceptional in this area.

Discussion



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Anomalously high pressure in the southern Indian Ocean will continue to promote a stronger than average easterly flow across much of the southwest Indian Ocean. This enhanced flow will cross a large area of above average SSTs, gaining moisture which will then be frequently released via convection as the flow impinges upon the high topography of Madagascar.

Expected Impacts

Slightly enhanced risk flash flooding and landslides.

Morocco, Algeria and Tunisia – See *Europe* section.

Somalia – See *Middle East* section.

Middle East

Yemen and Somalia

Weather

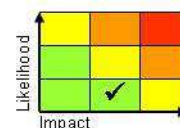
Shower and thunderstorm activity is expected to be more frequent than usual across Western Highland and southern coastal areas of Yemen and the wider Horn of Africa region. Some locations could see 20-30 mm in a few hours, which would exceed the average March monthly rainfall for most places. Some higher ground locations could see 50-100mm. Shower activity should begin to diminish by Thursday, with conditions becoming much drier by the weekend.

Discussion

A mid-latitude cold front has progressed south and reached the Gulf of Aden, leaving a plume of moisture which is enhancing shower and thunderstorm activity across the region. In addition to the low level cold front, a cyclonic upper flow will also promote convection through until the weekend when an anticyclonic upper flow will become established.

Expected Impacts

Increased likelihood of flash flooding and an enhanced risk of landslides where terrain is steep. In addition these conditions often increase the risk of cholera attacks.



South-east Turkey, Syria, Iraq and Iran

Weather

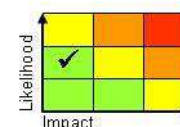
Conditions are likely to remain unsettled across the region, with further spells of at times heavy rain as well as strong winds. Some severe thunderstorms are also likely, mainly concentrated on mountainous areas. Coastal areas of Syria, as well as eastern Iraq/western Iran could see some 100-150mm of rain over the next seven days, whilst other areas see widely 20-40mm. For context, the average rainfall for all of March in this area is between 40-80mm.

Discussion

A disturbed and slightly south-shifted STJ is likely to continue to bring further spells of very unsettled weather to the region. Each spell of heavy rain/showers will progress from W-E, and as warm air is drawn N on the forward side of short-wave UTs, there is scope for some severe convection at times.

Expected Impacts

Increased likelihood of flash flooding and an enhanced risk of landslides where terrain is steep. Strong winds, large hail and an isolated tornado are additional hazards, as is lifted and blowing dust/sand where surfaces remain dry, this in turn affecting air quality.

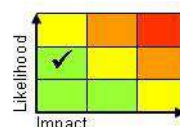


Arabian Gulf

Weather

The disturbed weather described above will extend to the Gulf at times through this period, bringing some thunderstorms, strong winds and areas of lifted and blowing dust. Rainfall should be mostly focused over sea areas.

Discussion



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Elevated convection is signalled to fire across the region at times through the period. Whilst bases are likely to be sufficient to preclude widespread heavy precipitation, some isolated downpours are possible, with the peak risk likely through the weekend. Some strong and downdraughts from these storms are likely, which in turn will lead to areas of lifted/blowing dust.

Expected Impacts

Impacts on local infrastructure from lightning strikes. Impacts on what limited aviation is ongoing in the area, as well as reduction in air quality from lifted/blowing dust.

Afghanistan, northern Pakistan, southern Nepal, and northern India

Weather

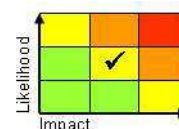
Areas of heavy rain and thunderstorms continue to cross the area, only slowly clearing later in the week. Heavy rainfall and mountain snow with precipitation totalling 50-75 mm, locally 150 mm, is possible, equivalent to the typical monthly rainfall for March. In the south of this region frequent lightning, large hail and strong winds with dense dust storms are also likely.

Discussion

A major cut-off upper low is now slowly progressing east across this region, this will be followed by a further minor disturbance through Friday and Saturday. Although both will produce heavy precipitation, the first will in particular be very active. Further disturbances are signalled to cross this region through the following week

Expected Impacts

Surface water and riverine flooding (with a contribution from snow melt) and landslides are likely. Lightning and wind damage is also likely, with dense dust storms possibly impacting on human health.



Asia

Eastern China

Weather

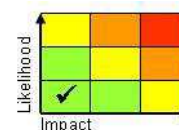
Further heavy rain and thunderstorms are expected to affect this region over the coming week, with activity modulating day to day. During this period, 50-100mm of rainfall is signalled to fall quite widely with peaks of 200-250mm possible. In many locations half of the total precipitation will likely fall in under 24 hours on one of the more active days, this would be equivalent to around the average March rainfall for eastern China.

Discussion

After heavy showers affect this area through the next few days, a strong baroclinic zone becomes established across this region and remains fairly slow-moving until the weekend. Various shortwave features in a modest sub-tropical jet will engage this zone, generating areas of heavy rainfall and thunderstorms which will run eastwards. However as this is near the start of the wet season in this area, impacts are expected to be minimal.

Expected Impacts

Localised flash flooding causing damage to property and infrastructure.



Malaysia, Indonesia, and Papua New Guinea

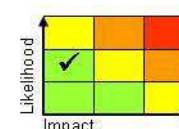
Weather

Shower and thunderstorm activity is expected to remain more widespread than normal over this week with many places receiving 50-100 mm during this time, with 250 mm in a few places. The heaviest rain is expected to occur over New Guinea during this period.

Discussion

Multiple tropical waves are already active in this region, and in addition the MJO is expected to propagate into the Maritime Continent over the next few days. This will continue to promote above average rainfall across the region in general.

Expected Impacts



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Increased risk of flash flooding and landslides, particularly in areas that have been affected by recent heavy rainfall.

Australasia

Southeastern Australia

Weather

Active showers will cross this region on Wednesday and Thursday, individual showers may locally bring 25-50mm of precipitation over a short duration.

Discussion

A shortwave upper trough runs east and engages a plume of moisture drawn southwards from the Coral Sea. This will result in heavy showers and thunderstorms developing. Profiles support some organisation and long-lived cells including MCS, with heavy rainfall likely to be the primary hazard.

Expected Impacts

Localised flash flooding causing damage to property and infrastructure.

Additional Information

Nil.



Issued at: 250800 UTC **Meteorologists:** Jason Kelly/Tony Wardle

Global Guidance Unit

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