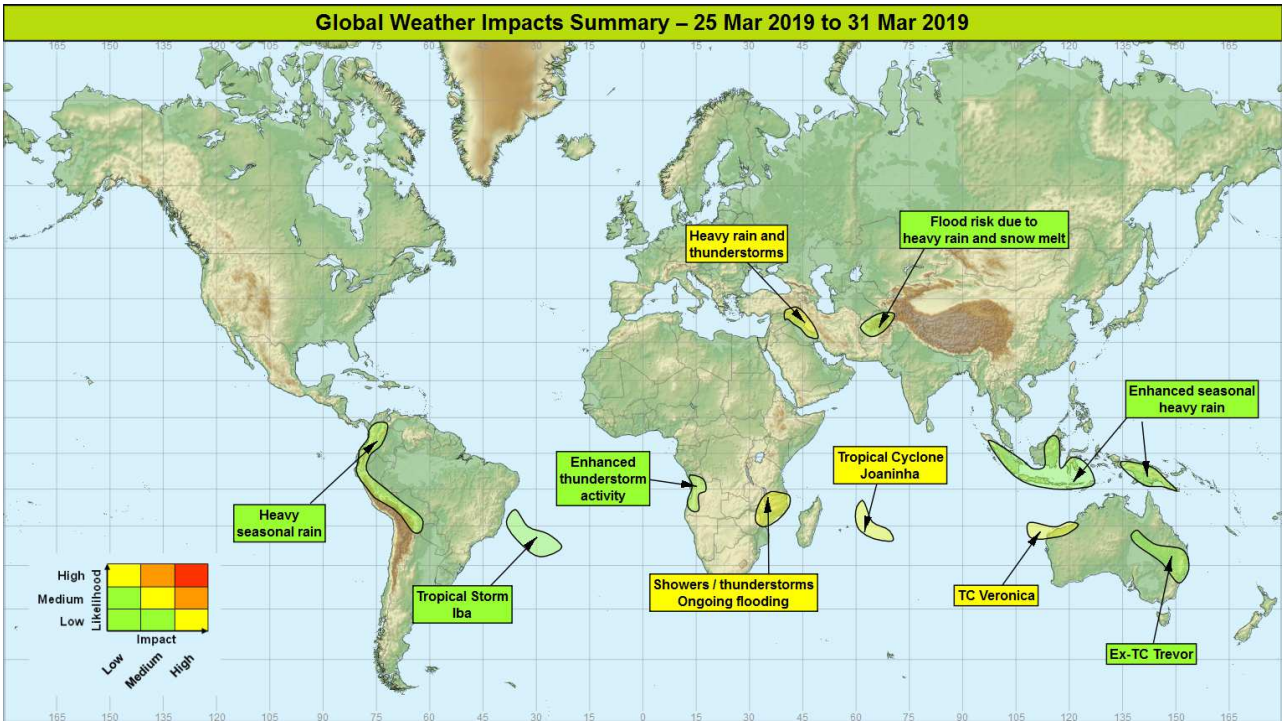
Met Office Daily Global Weather Impacts Assessment

Global Weather Impacts – Monday 25th to Sunday 31st March 2019

Issued on Monday 25th March 2019

HEADLINES

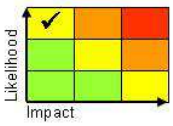
- Cyclone Joaninha is expected to pass close to Rodrigues within the next 36 hours.
- Shower activity across areas recovering from Cyclone Idai fairly typical for the time of year.
- Tropical Storm Iba is the first to form in the South Atlantic since 2010.



DISCUSSION

Tropical Cyclones

Tropical Cyclone Veronica (north-western Australia)



Weather

Veronica remains slow moving close to the Pilbara Coast of north-western Australia west of Port Headland. Interaction with the Australian mainland is weakening the system with sustained winds now around 65-70 mph. Veronica has been slow moving, and so its effects have impacted the Pilbara coast for an extended period. The cyclone is likely to weaken, and then turn west along the north coast of Western Australia through Monday before heading into the Indian Ocean. However it could bring a further 200-300 mm of rainfall along the north coast of Western Australia today.

Discussion

Interaction with the Australian landmass should continue to weaken the system as it begins to accelerate westwards through Monday. There is now good model agreement for Veronica to become a tropical low within 24 hours, and then pass into the Indian Ocean on Tuesday.

Expected Impacts

Veronica is likely to bring major flooding to parts of the Pilbara coast through Monday due to torrential rainfall and a coastal surge. Destructive winds are likely close to the core, but the areas affected are very sparsely populated which should limit the impact of this cyclone.

This forecast may be amended at any time
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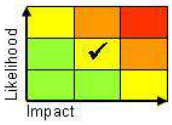
Tropical Cyclone Joaninha (Indian Ocean primarily Rodrigues)



Weather

Tropical Cyclone Joaninha has continued to gather strength as it tracks south over the Indian Ocean, now around 600 kilometres ENE of Port Louis. Maximum sustained winds (as of 25/0600 UTC) are estimated to be around 86 mph. Joaninha is forecast to drift southeast today, tracking close to the island of Rodrigues (350 miles east of Mauritius) tomorrow (Tuesday). Some additional strengthening seems possible today, although the official advisory calls for a maintenance of the current strength, 85-95 mph winds are to be expected close to the centre tomorrow. Torrential rain will be an additional hazard with the potential for 300-600 mm along its path.

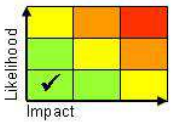
Discussion

Uncertainty over the forecast track is currently larger than normal. The precise track will make a huge difference to the level of impacts the island of Rodrigues will experience. The official track from RSMC La Reunion has shifted E in the latest issue, taking a track to the E of the island, which is similar to the GM, which would result in lesser impacts. EC remains the furthest W, but is considerably in error at T+6. GFS is slightly further W than GM, with much larger rainfall amounts, which is considered slightly less likely that GM's solution. All models are currently too far W with the centre, which suggests a track further E than indicated by the deterministic models.

Expected Impacts

Given the strength of this system, a slight westward shift in the preferred track could see destructive winds, torrential rain and a storm surge impacting Rodrigues; the current most likely track takes Joaninha east of Rodrigues with lesser impacts but still the potential for strong winds and heavy, flooding rains. Uncertainty over the forecast track remains large. Rodrigues was impacted by tropical cyclone Gelena last month, which resulted in the loss of electricity to 90% of residents, and so is likely to be more vulnerable than usual to another strong cyclone impact.

Tropical Storm Iba (South Atlantic Ocean)



Weather

An area of convection roughly 500 miles ENE of Belo Horizonte, Brazil has become sufficiently organised to be named Tropical Storm Iba by the Brazilian Navy. Tropical Storms are rare in the South Atlantic, Iba being the first true tropical system since Anita in 2010. Iba is likely to track slowly south through the next 24 hours, before turning south-east and undergoing extra-tropical transition.

Discussion

The northward shifted South Atlantic convergence zone has allowed Iba to develop. The model consensus keeps Iba away from the Brazilian coast, then turns the system south-east where it is likely to become extra-tropical later this week.

Expected Impacts

Iba is expected to remain over the ocean with no impacts to land.

Europe

Nil significant.

North America

Nil significant.

Central America and Caribbean

Nil significant.

South America

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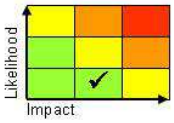
Northern Andes region (Colombia, Ecuador, Peru and Bolivia)



Weather

Heavy showers and thunderstorms are expected to continue to affect the northern Andes region for the next week. 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 places through the week.

Discussion

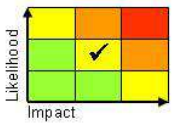
Along the Pacific coastline north of NE Peru there are positive SST anomalies, and these indicate a weakening of trade winds and the Humboldt Current in this region. This setup allows sea breezes to draw moist oceanic air to the usually dry western Andes, with an unusually high frequency of heavy showers and thunderstorms occurring here.

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.

Africa

Northern Mozambique, along with Malawi



Weather

Tropical cyclone Idai affected large parts of Mozambique, bringing locally devastating wind and rain impacts, more particularly to the coastal city of Beira. Conditions across the region are now fairly typical for the time of year. However there remain serious ongoing impacts as a result of Idai, and even modest rainfall could still have impacts with concerns in particular for the state of the Chagwa Dam near Zomba, Malawi, which it is feared may break.

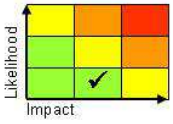
Discussion

This event may well rank as the worst Southern Hemisphere weather disaster on record, with some reports that the death toll has exceeded 1000. There are reports that 90% of the city of Beira has been destroyed. River flooding is likely to continue in central Mozambique for several days. Although weather conditions have now eased, clearly any further rainfall will impact the many thousands displaced by the disaster.

Expected Impacts

Improving weather conditions are expected for the severely impacted areas of eastern Zimbabwe and central Mozambique and southern Malawi. However with many thousands of people displaced by the disaster further showers and thunderstorms will impact these vulnerable people, and may delay rescue workers and aid deliveries to the worst affected areas.

Angola



Weather

Severe weather has also affected parts of Angola in recent days. Heavy rains and flooding have affected the provinces of Benguela, Luanda, Huila and Zaire, with further enhanced shower and thunderstorm activity likely through the next few days. These could give 30-50 mm of rainfall in a few hours, with locally over 100 mm falling through the week. This represents the amount of rainfall this region normally sees in the whole of March.

Discussion

All models signal thunderstorm activity to remain enhanced this week. Forecast profiles suggest some severe storms are likely, with well over 4000 J/Kg of CAPE available. Reports suggest floods have killed 19 people across Angola, with many more left homeless.

Expected Impacts

Further flash and river flooding, land and mudslides are likely posing a risk to life and property. Damage to infrastructure is possible along with significant travel disruption.

Rodrigues (SW Indian Ocean) – See *Tropical Cyclones* section.

Middle East

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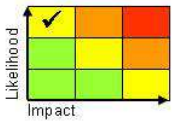
Northern Iraq, far southeast of Turkey and western Iran



Weather

Continuing very unsettled through Monday with heavy rain and thunderstorms developing. The heaviest rain and highest rainfall totals will be focused on the Zagros mountains with 50-100 mm falling in places each day and up to 200 mm possible before conditions improve by Wednesday. That would be roughly equivalent to twice as much as the average March rainfall in these areas. More impactful rainfall is likely across northern Iraq. Here storms could produce up to 50 mm in a short period impacting the vulnerable populations in this region.

Discussion

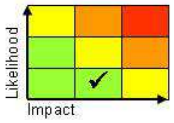
The driving upper vortex is expected to clear east through Monday, with an improvement in conditions following. Models are in good agreement with enhanced uplift over southwest facing slopes in the Zagros mountains likely to mean these areas will see the heaviest rain. A further upper trough looks likely to cross the region later this week with further storms developing.

Expected Impacts

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

Asia

Afghanistan



Weather

A series of active frontal systems will produce spells of heavy rain across Afghanistan next week, much of this focused across the north. The rain will be associated with very warm air that will melt the snow pack across the Hindu Kush below 3000-3500 metres.

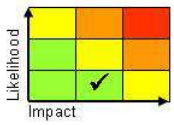
Discussion

There is a strong signal for heavier than average rainfall and rising freezing levels next week across Afghanistan. There is a deeper than average snow pack resulting from higher than average snow amounts this past winter across the Hindu Kush.

Expected Impacts

The combination of heavy rain and snow melt will increase the likelihood of flash flooding, river flooding and landslides across the mountainous northern and eastern Afghanistan, with downstream river flooding possible in southwestern Afghanistan. At higher altitudes there will be an increased likelihood of avalanches.

Indonesia, Malaysia, Brunei and Papua New Guinea



Weather

Above average rainfall is expected across many islands in this region through the next week. Whilst the heaviest downpours will be rather localised, they are likely to develop in a similar places each day with 100-150 mm of rain falling in 24 hours and some places likely to receive around 250-300 mm over the next week. In a typical 7-day period at this time of year, this region normally receives around 50-100 mm.

Discussion

The MJO, although weak, will continue to help to organise and enhance convection across the region. An additional contribution is expected to be the enhanced ITCZ due an increased flow, and subsequent convergence, from the south associated with tropical cyclone Veronica.

Expected Impacts

An increased likelihood of flash flooding and landslides leading to localised damage to infrastructure and property.

Australasia

Northwestern Australia – See *Tropical Cyclones* section.

Papua New Guinea – See *Asia* section.

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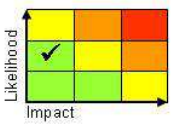
Ex-TC Trevor (Northeastern Australia)



Weather

The remains of Trevor will continue to track south and then southeast into the interior of Australia, possibly close to Alice Springs, and gradually weaken. The focus will now be on very heavy rainfall. Parts of the Northern Territory and Queensland are likely to see up tom 300 mm of rainfall over the next 2 to 3 days. Heavy rainfall is then likely to spread further southeast over parts of Queensland and towards New South Wales. Heavy rainfall and thunderstorms may reach Brisbane of the Gold Coast by midweek

Discussion

Models are in relatively good agreement in the handling of Ex-Trevor over the coming days as it tracks into the interior of Australia and weakens. There is more uncertainty whether the remnants of the system will bring very heavy rainfall to more densely populated areas (e.g. Brisbane) along the east coast during the middle of next week. An upper trough may also engage the remnant moisture and force the development of some severe storms, perhaps as far south as Sydney.

Expected Impacts

Flash flooding and river flooding likely. Damaging gusts of wind are possible in association with thunderstorms. Impacts likely limited through the next day or two as the system crosses very sparsely populated areas. Risk of more significant impacts to Brisbane, Gold Coast and possibly Sydney later this week.

Additional information

Nil.

Issued at: 250830 UTC **Meteorologist:** Mark Sidaway / D J Harris **Global Guidance Unit**

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