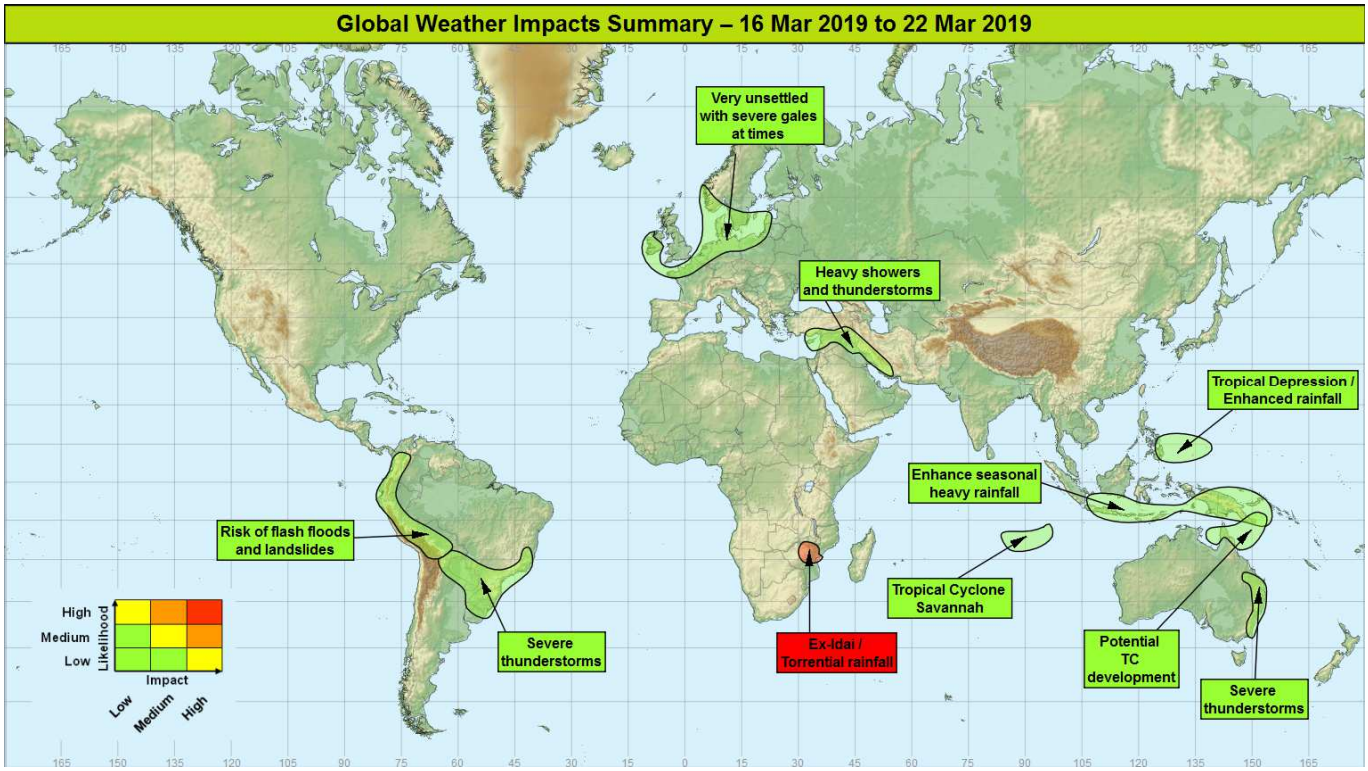
Met Office Daily Global Weather Impacts Assessment

Global Weather Impacts – Saturday 16th to Friday 22nd March 2019

Issued on Saturday 16th March 2019

HEADLINES

- Torrential rainfall over parts of Mozambique, Eastern Zimbabwe and southern Malawi as a result of Ex-Idai.
- Enhanced seasonal heavy rainfall across parts of South America and the Maritime Continent.

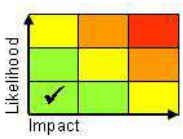


DISCUSSION

Tropical Cyclones

Ex-Tropical Cyclone Idai - See *Africa* Section below.

Tropical Cyclone Savannah (Southeast Indian Ocean)



Weather

Savannah has intensified to a category 3 cyclone as it continues to move southwest away from the Cocos Islands. Savannah is forecast to continue west-southwest and remain over open waters in the Indian Ocean over the coming days.

Discussion

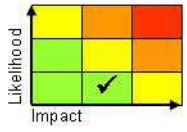
Good model agreement that Savannah will track away from the Cocos and remain over open waters through this period but may intensify further.

Expected Impacts

None expected.

The following areas are being monitored for Tropical Cyclone development:

Papua New Guinea and far northeast of Australia



Weather

There is the potential for a tropical cyclone to develop over the weekend close to eastern Papua New Guinea. The system is likely to drift southwest into the Coral Sea, perhaps reaching the Cape York region of Queensland, Australia early next week.

This forecast may be amended at any time
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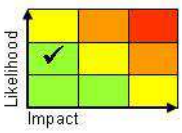
Discussion
An area of convection east of Papua New Guinea is indicative of a developing tropical low in the area. With low to moderate shear and the warm waters of the Solomon Sea, further development is likely as this system drifts slowly south, with good agreement from models that the system will develop into a tropical cyclone. The development is then likely to track south-west, across the Coral Sea, perhaps reaching the northern end of Cape York Peninsula early next week.
Expected Impacts
Enhanced rainfall across the eastern end of Papua New Guinea could lead to some flash flooding today. Depending on how developed the system becomes there is a risk of damaging winds, flash flooding and coastal impacts to the northern Cape York peninsula next week.

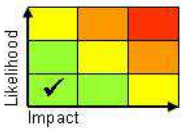
Western Pacific



Weather
A tropical depression in the western Pacific is expected to track west over the coming days toward central and southern Philippines. This system is unlikely to become a tropical cyclone, but may bring some enhanced rainfall to parts of The Philippines next week.
Discussion
A combination of marginal sea surface temperatures and increasing upper level shear are likely to restrict further development of this system as it heads west across the Pacific. Models are in good agreement for it to reach the southern Philippines early next week.
Expected Impacts
The main impacts are likely to be enhanced rainfall across eastern parts of the central and southern Philippines, most likely on Monday. This could give some flash flooding.

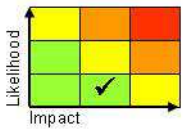
Europe

Northwestern Europe



Weather
The recent spell of often very wet and very windy conditions across north-west Europe will continue over the weekend as another potent low pressure crosses the British Isles then moves into southern Scandinavia. This will again produce gales or severe gales, with some especially strong winds looking likely across Denmark and perhaps southern Sweden on Sunday and Monday. As we head into next week a build of pressure from the south-west should bring the very disturbed weather to an end.
Discussion
The low crossing the British Isles today will remain in contact with an upper trough as it crosses the North Sea and will continue to deepen. There are positional differences between the models, but all show a sub 970 hPa feature centred close to south-western Norway by midday Sunday. The low then fills only slowly as it drifts east across southern Scandinavia, with a lengthy spell of gales, perhaps severe gales likely across Denmark and southern Sweden. An amplification of the upper pattern across The Atlantic should bring an end to the disturbed weather next week.
Expected Impacts
The main impacts are likely to be wind related, so disruption to travel, especially aviation and marine seems likely. There is a lesser risk of disruption to power supplies from fallen trees as well as damage to buildings.

Southern Turkey, Cyprus, Lebanon, Syria, northern Iraq and western Iran



Weather
Spells of heavy rain and thunderstorms will move east across this region over the weekend, producing up to 50 mm in a 6-12 hour period, and in places up to 100 mm during the period (which is double the average March rainfall in the region). Strong winds or gales are possible at times, producing rough seas, as well as lifting dense dust plumes.
Discussion
A succession of marked upper troughs will sweep east across this region, pushing active frontal systems and deeply unstable airmasses across the region.

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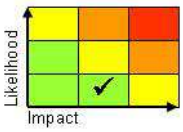
Expected Impacts
Some flash flooding is possible, especially in mountainous regions. The strong winds will be hazardous to shipping in the area, and may cause local land disruption, lifting dense dust plumes across Syria and Iraq.

North America
Nil significant.

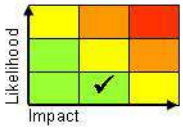
Central America and Caribbean
Nil significant.

South America
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 some places are likely to see a further 200-300 mm of rain 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 now preconditioned by previous rainfall, further heavy rain will produce some additional impacts. Over recent weeks there has already been significant damage to infrastructure from flooding, with homes, bridges and roads destroyed.

Paraguay, southern Brazil, Uruguay and far northeast of Argentina



Weather
Further bouts of showers and thunderstorms are expected to affect the region over the next week. Thunderstorms will produce strong winds, large hail and a risk of tornadoes. Rainfall totals of 100-150 mm are possible in a few hours in places. The heaviest and most frequent rainfall looks likely to be over Paraguay over the next few days with rainfall accumulations of 250 to 300 mm possible in places, this double the average March rainfall.
Discussion
A number of disturbances embedded within the subtropical jet are expected to lead to further episodes of severe convection along the South Atlantic Convergence Zone (SACZ). The environment will often be characterised by high CAPE and shear, supporting mesoscale convective systems and supercells.
Expected Impacts
Flash flooding and increased risk of landslides and fluvial flooding are likely. Severe thunderstorms will also cause some highly localised but potentially significant property and infrastructure impacts due to strong winds, hail and lightning damage.

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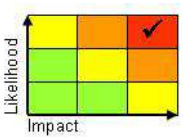
Daily Global Weather Impacts Assessment

Africa

Central Mozambique, southern Malawi and eastern Zimbabwe



Weather

After making landfall close to Beira, Mozambique on Thursday evening, winds associated with Ex-Cyclone Idai have rapidly decreased, and RSMC La Reunion have issued their final advisory on this system as a tropical cyclone. The remnant circulation of Ex-Idai now looks to lie close to the border between Mozambique and Zimbabwe. Over the coming days, despite Idai substantially weakening, exceptional rainfall is expected across central Mozambique, eastern Zimbabwe and the far south of Malawi. Whilst the highest rainfall totals looks likely to be over the weekend and into Monday, heavy rain is expected to linger in this area throughout next week. By Monday or Tuesday, some locations could receive in excess of 1000mm of rainfall (generally these areas see 150-300 mm of rainfall in a typical March), with 500 to 750 mm of rainfall falling across a wider area.

Discussion

Ex-Idai now has only a weak circulation so impacts from its winds are now over. However the remnant moisture from this system will remain slow moving across this region for much of the coming week producing torrential and prolonged spells of rain. Models differ slightly as to where and how much rain will fall, although the border region between Mozambique and Zimbabwe looks most prone, perhaps also southern Malawi. This region has already seen very heavy seasonal rainfall in recent weeks with severe and deadly flood impacts. So further very heavy rainfall will just exacerbate the situation.

Expected Impacts

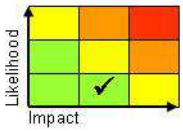
Flash and fluvial flooding, with major river systems such as the Zambezi, Pungwe, Revue and Save likely to be affected. The impact Idai has already had on Mozambique is as yet unclear. However it is likely that the country and population will be especially vulnerable at this time.

Middle East

Lebanon, northern Syria, northern Iraq and western Iran – See *Europe* section

Asia

Central and eastern Indonesia and Papua New Guinea (see also *Tropical Cyclone* section)



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 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 will continue to move through the Maritime Continent and into the West Pacific through the next week, helping to organise and enhance convection across the region.

Expected Impacts

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

Australasia

Papua New Guinea – See *Asia and Tropical Cyclone* section.

Far northeast of Australia – See *Tropical Cyclones* section.

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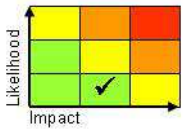
Eastern fringes of Australia



Weather

Severe thunderstorms are expected to affect the far eastern part of Australia over the weekend before activity eases early next week. These thunderstorms have the potential to produce large amounts of rain (e.g. 50-100 mm) in a few hours in places along with frequent lightning, strong gusty winds and large hail. Over the coming days some places, with a risk for major cities including Brisbane and Sydney, could see up to of rainfall build up which would be almost twice the average March rainfall.

Discussion

The combination of a moist onshore flow, warm low level plume and disrupting upper trough will produce conditions for high CAPE (>2000 J/kg) storms that will contain 40-50 mm of precipitable water.

Expected Impacts

Flash flooding and large hail damage look like the main impacts, although surface and air transport are also likely to be impacted.

Additional information

Nil.

Issued at: 160830 UTC **Meteorologist:** Mark Sidaway **Global Guidance Unit**

This forecast may be amended at any time

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