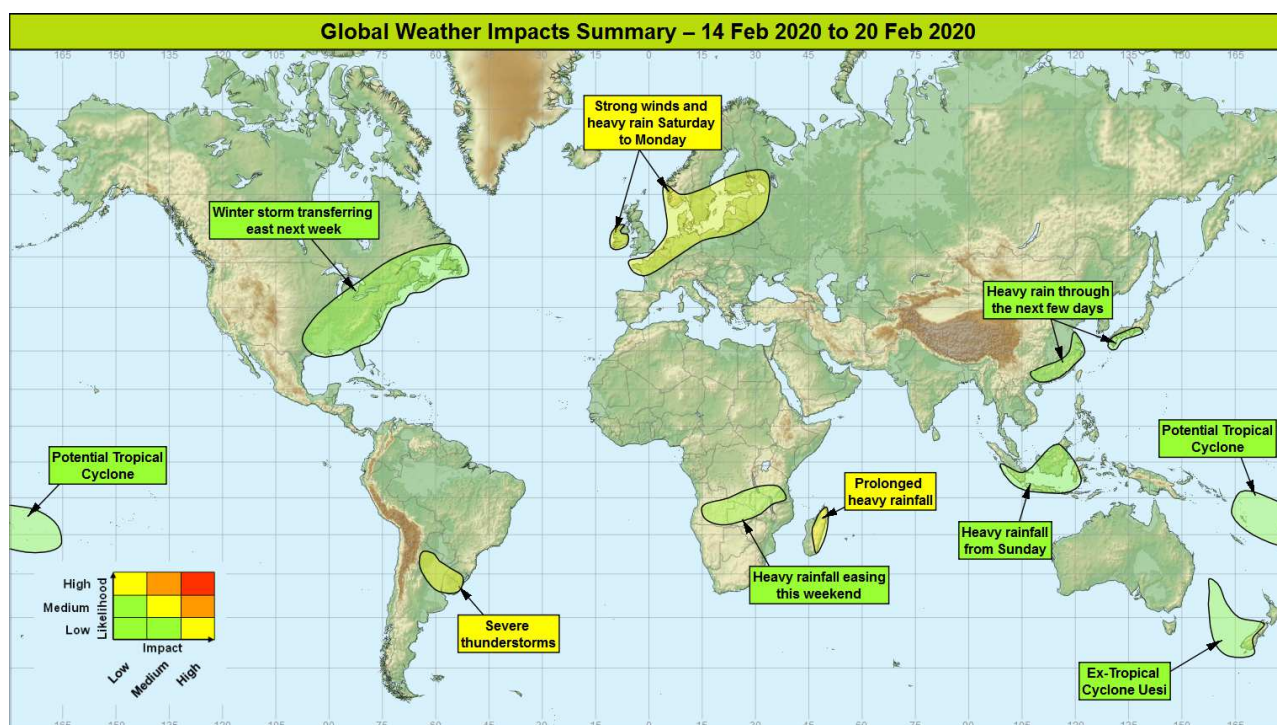


Global Weather Impacts – Friday 14th to Thursday 20th February 2020

Issued on Friday 14th February 2020

HEADLINES

- Disruptive winds and heavy across much of north and northwest Europe Saturday to Monday.
- Further heavy rainfall for parts of Madagascar.
- Severe thunderstorms likely to bring disruptive conditions to parts of South America.



DISCUSSION

Tropical Cyclones

There are currently no active tropical cyclones. The following area is being monitored for potential development:

Southwest Pacific Weather

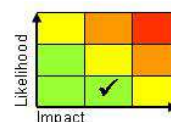
There is a reasonable chance that one or two tropical cyclones will develop near Fiji and/or Vanuatu later this weekend and early next week before tracking southeastwards. This has the potential to bring damaging winds and/or torrential rain to some of the Pacific Islands in the highlighted area including Vanuatu, Fiji, Tonga and Samoa and American Samoa.

Discussion

There is a growing signal for the development of one or more tropical cyclones in the Southwest Pacific early next week. However, there continues to be significant differences across deterministic output regarding any system's intensity and track.

Expected Impacts

Risk of damaging winds and torrential rain. Rough seas may impact maritime travel.



This forecast may be amended at any time

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Europe

North and northwest Europe

Weather

Another very unsettled spell is expected this weekend associated with a very deep Atlantic low pressure system which the Met Office has named 'Dennis'. Strong, gusty winds are expected widely from Saturday through to Monday. In addition, heavy, persistent rain will also impact parts of the highlighted area. Conditions should tend to improve from the west early next week.

Discussion

An energetic, positive NAO (North Atlantic Oscillation) pattern is set to continue with a consistent model signal for major cyclogenesis to take place during Friday and early Saturday resulting in an extremely deep low pressure system forming to the northwest of the British Isles. Strong winds and fronts associated with this low will spread east across northern Europe over the weekend. Whilst models are broadly in very good agreement there is still some uncertainty regarding the potential for waves to develop along the trailing frontal zone which may act to intensify already strong winds to parts of the highlighted area.

Expected Impacts

Widespread impacts to travel are expected with disruption to road, rail, sea and air transport. Winds may also be strong enough to cause more localised damage to structures and buildings. There is also an increased threat of flooding to homes and businesses.



North America

Eastern USA and SE Canada

Weather

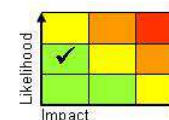
A winter storm is expected to develop on Monday across central parts of the USA on Monday, before becoming more intense and transferring east through the following days, likely moving out into the Atlantic by or through Thursday. This system will bring very heavy rainfall (up to 100 mm in a few days) in places (especially southern parts of the highlighted area) with heavy snow and freezing rain in more northern parts of the area.

Discussion

The combination of an eastward travelling upper trough from the Rockies and a northward extending warm plume from the Gulf of Mexico will develop a low pressure area and strengthening frontal system early next week.

Expected Impacts

Flash flooding in more southern areas looks possible, with winter hazards in the north of the area likely disrupting transport and power network.



Central America

Nil significant.

South America

Uruguay, northern Argentina and the far southeast of Brazil

Weather

Daily heavy shower and thunderstorm activity is expected over the next 5 days with thunderstorms likely to be severe in places. These bringing a risk of torrential downpours by the weekend and through into the early part of next week. 50-100 mm per day is possible in the heaviest showers, with a risk of hail, frequent lightning and localised damaging wind gusts. Through the 5 day period up to 200 mm of rainfall could be seen, which is almost double the February average rainfall in this region.

Discussion



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A renewed pulse of the SACZ is forecast affect the region, induced by renewed troughing in the sub-tropical jet. High PWAT, accompanied by strong vertical shear and CAPE, should lead to the development of heavy thunderstorms, with the potential to organise into severe thunderstorms/MCS structures.

Expected Impacts

Increased threat of flash flooding and landslides, particularly in mountainous terrain. Hail, lightning, and strong winds may disrupt transport and cause localised damage to homes and businesses.

Africa

Southern Tanzania, Malawi, Zambia, Angola and southern Democratic Republic of Congo

Weather

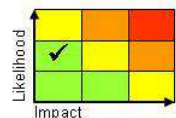
Torrential, thundery rain will ease from the east across this region through the next 3 days. Many places will continue to see 25-50 mm rain each day, with a few places likely to see 75-150 mm in the heaviest, most frequent showers.

Discussion

The resident plume of warm tropical air across the area will continue to interact with small scale PV anomalies through the next few days, allowing the formation of heavy diurnal showers and thunderstorms each day. Activity will tend to be concentrated along the ITCZ. The rainfall will ease early next week as the upper forcing weakens.

Expected Impacts

Although much of the rainfall will be welcome across areas that have experienced rainfall deficits in recent times, significant flash and river flooding is possible.



Madagascar

Weather

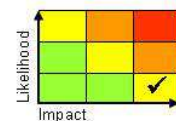
The remnants of a tropical cyclone (ex-Francisco) will produce a focus for frequent heavy showers and thunderstorms across the east and north of Madagascar through much of the next week, although the intensity of rain is likely to slowly ease from Monday. 100-200 mm is likely quite widely, with some places in the east perhaps seeing 400-700 mm of rain over the course of the next week (average rainfall 200-500 mm for February). The capital, Antananarivo, is likely to be affected.

Discussion

The remnants of tropical cyclone Francisco and its associated low-level moisture plume, is expected to be enhanced by an Equatorial Rossby Wave leading to the development of frequent heavy showers and thunderstorms, then heavy rain. Some significant totals are expected across the favourable topography across the east of the island.

Expected Impacts

Flash flooding and landslides look likely, with an increasing threat of river flooding.



Middle East

Nil significant

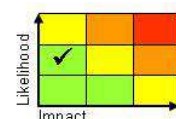
Asia

Southeast China and southern Japan

Weather

Areas of heavy rain and showers are expected across southern China and southern Japan until Sunday. 50-100 mm of rain per day is expected within the rain band, with some places across southeast China seeing 150-200mm over 2 or 3 days. As the frontal zone clears south the rain is likely to turn to snow across parts of southern and eastern China, with a threat of significant snowfall in places.

Discussion



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Broad troughing in the sub-tropical jet over China will generate heavy rain along the quasi-stationary frontal zone here. A wave depressions breaking forward across Japan over the weekend will bring heavy rain and stronger winds across southern Japan on Saturday and Sunday. Within the warm air significant deep instability is present, with potential for organised, heavy showers and thunderstorms in a high PWAT airmass. As the front clears south cold advection will lower the WBFL to allow for snow to fall to low levels before the precip clears.

Expected Impacts

Localised flash flooding, landslides, and potential for some rivers to flood too given the duration of the event. Disruption to transport also likely.

Parts of Indonesia

Weather

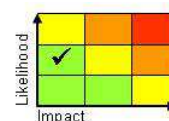
An increase in the frequency and intensity of heavy showers and thunderstorms are expected from Sunday, continuing through next week, across parts of Indonesia, including Java. Up to 100 mm of rain could fall in a 6-12 hour period in association with these thunderstorms.

Discussion

The ITCZ looks likely to become more intense later this weekend due to a surge in NE'ly monsoon to the north and more of a southerly flow from the south. This enhanced low level convergence will increase the potential for more widespread and intense convection.

Expected Impacts

Increased threat of flash flooding and landslides.



Australasia

South Island, New Zealand

Weather

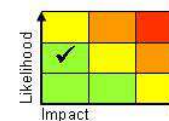
Ex-tropical cyclone Uesi is likely to track close to the far southwest of New Zealand over the weekend. This will bring persistent, heavy rain across and to the west of the Southern Alps. 50-100mm will fall widely over a couple of days with more isolated totals of 200-250mm over high ground. Very strong winds will accompany the rain although the system has already weakened substantially since it was a tropical cyclone.

Discussion

The centre of Uesi is now well to the southwest of New Caledonia and tracking south across the open waters of the Tasman Sea in the coming days. This system is continuing to lose its tropical characteristics and will weaken further as vertical wind shear increases and it moves across cooler waters. Its exact track is still uncertain but there is a growing consensus that ex-Uesi will reach the South Island of New Zealand over the weekend.

Expected Impacts

Rough seas could impact marine travel in the Tasman Sea. Flash flooding possible for New Zealand over the weekend although much of the rainfall probably falling in resilient areas. Also, an increased threat of landslides which could impact transport and/or damage buildings.



Additional Information

Nil.

Issued at: 140800 UTC **Meteorologists:** Chris Bulmer / Paul Hutcheon

Global Guidance Unit

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