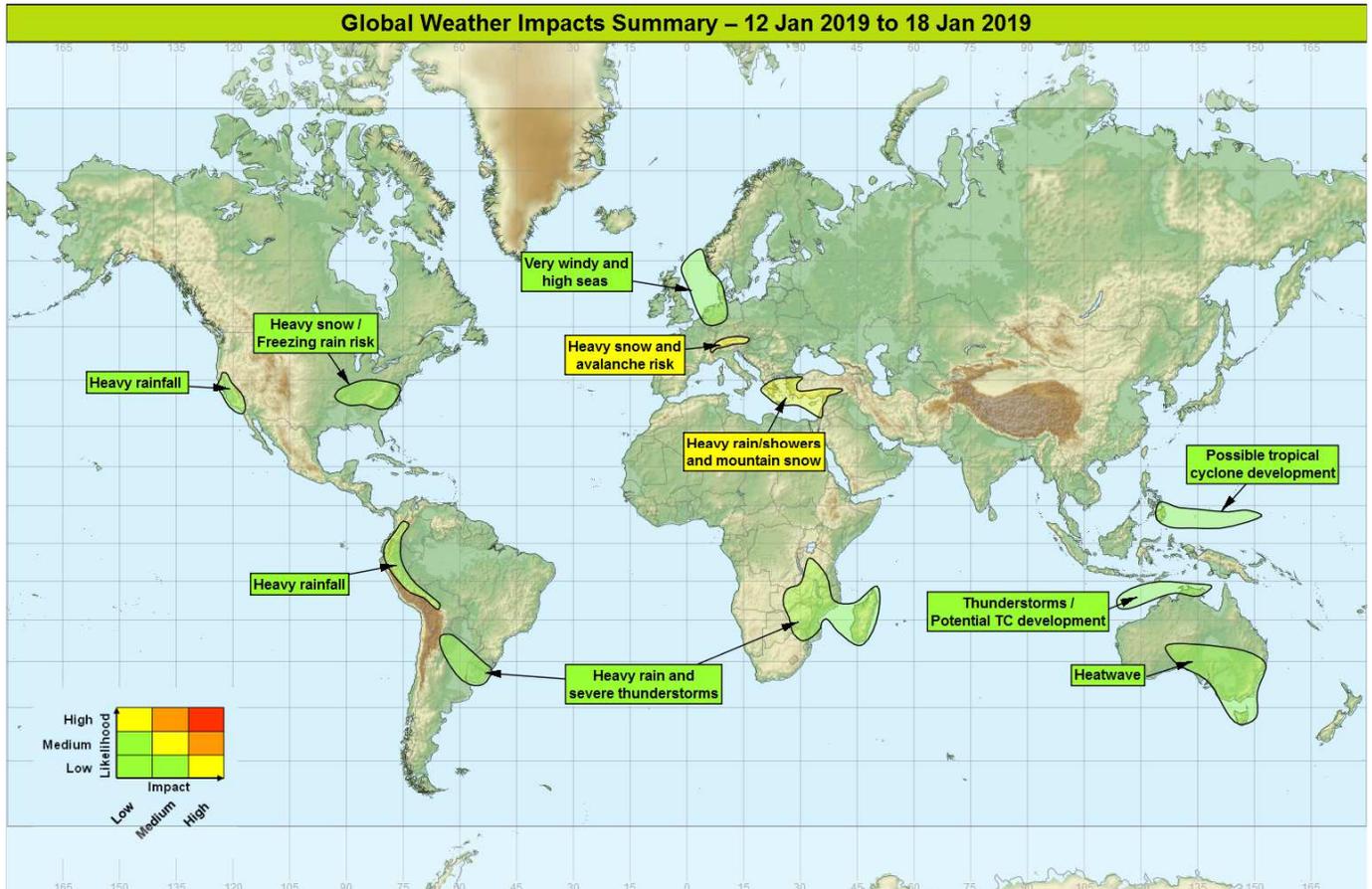


Global Weather Impacts – Saturday 11th to Friday 18th January 2019

Issued on Saturday 12th January 2019

HEADLINES

- Further heavy snow expected across the northern Alps, leading to yet more disruption to transport and maintaining a high avalanche risk.
- Remaining unsettled across the eastern Mediterranean with heavy showers / thunderstorms and strong winds.
- Developing winter storm likely to affect the eastern USA this weekend, including Washington DC.



DISCUSSION

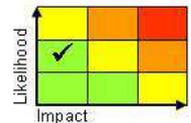
Tropical Cyclones

There are currently no named tropical cyclones. The following areas are being monitored:

Northern Australia and Timor-Leste Weather

The remnant moisture associated with ex-Tropical Cyclone Penny is producing heavy showers and thunderstorms across northern parts of Northern Territory, these perhaps giving 50- 75 mm of rainfall in places, including a risk to Darwin. Thereafter, there is a low probability that this remnant moisture may help spawn a new tropical cyclone to the south of Timor, and could bring heavy rain to Timor-Leste through early next week.

Discussion



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Although any circulation associated with what was Penny has long since decayed, remnant moisture and convection is still evident on imagery. There is some model output that signals for this to become entrained within a trough and spawn a new tropical low, possibly a tropical cyclone during Monday or Tuesday (UK time) as it moves across the Timor Sea. This feature is then expected to track SW and remain over the sea from Wednesday.

Expected Impacts

Risk of flash across the north of Northern Territory, including Darwin over the weekend before a similar risk reaches Timor-Leste for Monday and Tuesday.

Northwest Pacific (Micronesia and southern Philippines)

Weather

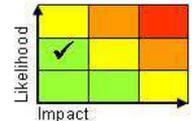
An enhanced area of thunderstorms is expected to track west from across Micronesia towards the southern Philippines (Mindanao) by the end of the week. There is a low risk that the convective activity could become organised to form a tropical cyclone, at least for a time.

Discussion

An equatorial Rossby Wave developed a tropical low level circulation in the last few days, and this is expected to track westward track across Micronesia through the coming week.

Expected Impacts

Possibility of local flash flooding affecting some of the tiny Micronesian Islands and by the end of the week towards the southern Philippines, with a much lower likelihood of wind-related impacts.



Europe

Greece, Turkey, Cyprus, Lebanon and northwest Syria

Weather

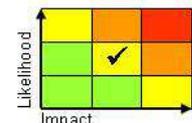
Further spells of heavy rain, thunderstorms and mountain snow are expected to affect the region over the next week. The focus for the heaviest rainfall will be across Southern Greece and Western Turkey on Saturday, with the rest the region having a somewhat drier spell of weather. However, conditions are expected to turn very unsettled across Southern Turkey, Cyprus and parts of the Levant from Sunday, then to parts of Northern Syria by Tuesday. Some snow is expected across the higher ground, perhaps including as far south as close to Jerusalem. Up to 50-100 mm, perhaps 150mm across parts of Southern Turkey could fall in some locations on any particular day, with up to 300 mm in some places building up over the course of the next few days.

Discussion

The remarkably persistent planetary scale ridge near to the meridian will continue to feed trough extensions south towards the eastern Mediterranean. This will create an environment which develops a series of waves/lows resulting in widespread showers and thunderstorms across the region. On the northern edge of the systems cold air will result in snowfall across higher ground of southeast Europe. This pattern shows no sign of breaking down and the very unsettled conditions have the potential to last for another couple of weeks.

Expected Impacts

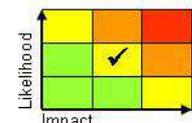
Further heavy rainfall will lead to an enhanced threat of flash flooding and landslides in the region, more especially as this follows previous wet weather in recent weeks and months. In addition strong winds and below average temperatures are likely to affect vulnerable populations in parts of southern Turkey and the Levant region. Snowfall over parts of Turkey and Greece may also cause some transport disruption and perhaps utility outages.



Alps, Switzerland, Austria and southern Germany

Weather

Further spells of heavy snow are expected across the Austrian, Swiss and southern German Alps through this period from late on Saturday, and more especially during Sunday and Monday. With the snow line lifting to around 800 metres with this system, this could bring a combination of heavy rain and short-lived thaw of lying snow to low levels before colder conditions return by the end of Monday. From Monday there us a signal for a decrease in snowfall across this area for a time, but the avalanche risk will persist.



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Discussion

Frontal systems arriving from the north or northwest, bringing higher WBPT/moister air, combined with brisk northerly flow will generate significant orographically enhanced precipitation. Over the next few days snow will fall to all levels, but over the weekend will become restricted to above 800 metres, leading to a thaw of lying snow at low levels. Rising and fluctuating freezing levels over the weekend will make the snow pack more unstable than usual, increasing the risk of avalanches. This is all linked to the persistent pattern described in the section above. Although snowfall has been most severe across the northern Alps, impacts have been felt in other parts of northern and eastern Europe in recent days, including parts of Scandinavia and Germany.

Expected Impacts

Even in a region so well prepared for such weather, this amount of snowfall is likely to cause disruption to air and land based transport. 3 to 5 metres of fresh snow has been reported across the highest tops of the Alps in the last few days. Additional snow (1-1.5 meters) will also increase the already very high threat of avalanches in the region. Risk of some flood impacts at lower elevations possible this weekend.

North Sea and adjacent coastlines

Weather

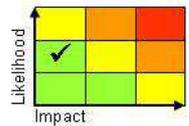
A further spell of severe gales is likely to develop on Sunday, lasting into Monday, affecting countries bordering the southern North Sea.

Discussion

There is increasing evidence to suggest a deep depression will track from Iceland, then close to southern Norway and towards the Baltic Sea during Sunday and Monday. Very strong winds, across a large area is associated with this feature and will lead to very rough seas and possibly produce a significant storm surge across the southern North Sea.

Expected Impacts

Disruption to marine and offshore activities is expected. Wind damage is possible across Denmark, northern Germany and the Netherlands, with these coastlines seeing the threat of storm surge flooding.



North America

California

Weather

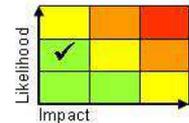
Further Pacific weather systems are expected to affect the state on Saturday and again from Tuesday onwards. Over the next 7 days, many locations will receive over 75-100 mm of rain per day, with locally 100-150 mm possible. Above 1600 metres, further significant snowfall is expected over the Sierra Nevada range.

Discussion

A succession of Pacific depressions will affect the region over the weekend and from early next week, driven by a stronger sub-tropical jet. The semi-permanent trough across the western USA is expected to prevail throughout next week and maintain the unsettled conditions across the southwest.

Expected Impacts

Flash flooding has already affected California in recent days so further rainfall will add to the problems. Mudslides are a significant threat in burn scar regions of California in particular. Heightened avalanche threat is also likely in the Sierra Nevada.



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Central and eastern USA

Weather

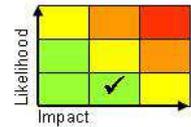
A developing winter storm is bringing snow to much of the central USA at the moment. This is expected to extend eastwards across Tennessee, North Carolina, Virginia and the Southern Appalachians this weekend. Some larger population centres such as St Louis, Cincinnati and perhaps even towards Chicago in the north and Washington DC in the east could receive 10-20 cm of snow at lower levels and 20-40cm over the Appalachians. There is also a risk of freezing rain in places.

Discussion

An upper trough has spawned cyclogenesis across the central USA. Along the northern flank of this system areas of heavy snow will develop as the whole system progresses eastwards. Forecast profiles support a risk of freezing rain on the southern edge of the main band of snow, although as always there is uncertainty as to which areas will see this.

Expected Impacts

Significant travel disruption is likely along with disruption to power supplies.



Central America and Caribbean

Nil significant.

South America

Northern Argentina, far south of Brazil and Uruguay

Weather

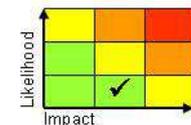
Further episodes of frequent heavy showers and severe thunderstorms are expected to affect this area over the next week, producing a combination of torrential, short-period rainfall, large hail, damaging wind gusts and a tornado threat. Storms will develop during most afternoons, persisting well into the night time. These storms are capable of producing up to 200 mm of rainfall in 24 hours, and in recent days some locations have seen 24 hour rainfall records broken.

Discussion

Successive rounds of severe convection are expected as the seasonal warm plume is drawn south and engaged by shortwave upper troughs crossing South America. A combination of large CAPE and vertical wind shear will support the development of MCS and supercells.

Expected Impacts

Impacts will be fairly localised given the nature of showers, but further flash flooding from heavy rainfall is likely. Additionally, large hail, frequent lightning and strong winds/tornadoes are likely to cause some damage to property and utilities infrastructure.



Western Colombia, Ecuador, Peru and Bolivia

Weather

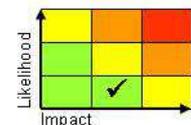
Enhanced rainfall, in association with frequent showers and thunderstorms, is expected this week across the region. There is the potential for up to 350 mm of rain across part of the Andes over the next week. This is likely to equate to the average January rainfall.

Discussion

This may be influenced by the significantly positive SST anomalies of 2 to 4 C along the Pacific coastline in this region.

Expected Impacts

Increased likelihood of flooding and landslides.



Africa

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Mozambique, Zimbabwe, Zambia, Malawi, Madagascar, northern South Africa and Tanzania**Weather**

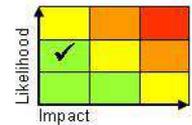
Enhanced seasonal rains are expected to continue in the form of more frequent thunderstorms. These could locally bring 50-100 mm of rainfall in 24 hours, with some significant totals perhaps falling in a short period. Some locations could see 200-250 mm over the next week, with these values close to the January average. In addition to heavy rainfall, these will likely produce frequent lightning, strong downdraughts and possibly large hailstones too.

Discussion

Enhanced seasonal rainfall associated with monsoon plume is forecast to continue over the next week, with significant rainfall anomalies being generated by the models. Showers will mainly be focussed by the (at times diffuse) axis of high WBPT.

Expected Impacts

The majority of the area highlighted is sparsely populated; however there are a few large densely populated cities within it. Impacts will be fairly localised given the nature of showers, but flash flooding from heavy rainfall is possible. Additionally, large hail, frequent lightning and strong winds are likely to cause some damage to property, crops and infrastructure. The likelihood of a populated area being significantly affected is rather low.

**Middle East**

Israel, Syria and Lebanon – See *Europe* section.

Asia

Micronesia, Philippines and Timor-Leste – See *Tropical Cyclone* section.

Australasia

Northern Australia – See *Tropical Cyclone* section.

Southern Australia**Weather**

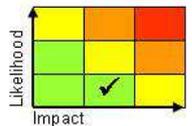
Higher than normal temperatures across parts of central western Australia are expected to extend and transfer W/SW towards New South Wales and Victoria. Temperatures are expected to hit the high 30's to low 40s C by midweek towards some of the more populated areas, including Adelaide, Melbourne and Canberra. This is some 7-10C above normal for the season and has been described by the Australian Meteorological Bureau as a "Severe Heatwave". Later in the week the high temperature should begin to ease somewhat and return to more normal values.

Discussion

High temperatures are not unusual for Australia in the last decade. The Bureau of Meteorology recently announced that 2018 was the 3rd warmest year on record. These heatwaves tend to develop over NW Australia, where the town of Marble Bar has now exceeded 40 C for 22 consecutive days, then spread south and east across the interior, then on to affect the more populous areas of south-eastern Australia.

Expected Impacts

Extreme heat can impact the health of the population and stress the stress on health care, plus the provision of water and other utilities, including power. The Australian Open tennis takes place this week in Melbourne and may impact both players and spectators alike, and may lead to some suspension of play due to heat related sickness similar to last year. The heat, combined with prolonged dry weather will also lead to an increased risk of wildfires developing.

**Additional information**

Nil.

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Issued at: 120850 UTC **Meteorologist:** Tony Wardle / Mark Sidaway

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