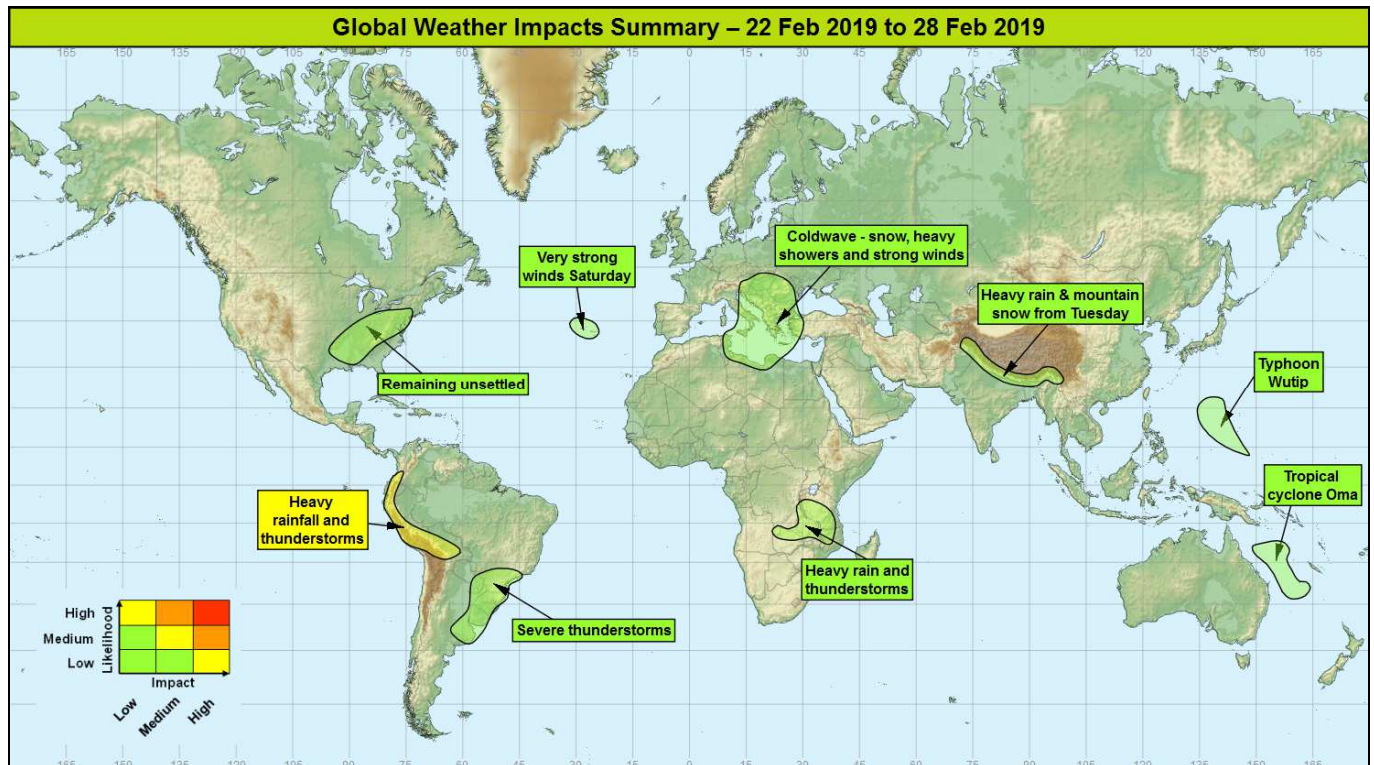


Global Weather Impacts – Friday 22nd to Thursday 28th February 2019

Issued on Friday 22nd February 2019

HEADLINES

- Heavy rain and thunderstorms continuing over Colombia, Ecuador, Peru and Bolivia with flooding likely.
- Typhoon Wutip continues northwest in the tropical Pacific – possibly impacting Guam this weekend.
- Tropical cyclone Oma meandering over the Coral Sea/South Pacific.
- Severe thunderstorms, with a tornado risk, across SE USA Saturday and early Sunday.



DISCUSSION

Tropical Cyclones

Tropical cyclone Oma (Australasia)

Weather

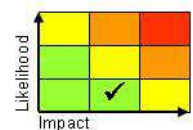
Tropical cyclone Oma, situated near 25.8S, 159.2E, is now expected to stay over open waters for the next week. Oma is currently producing mean wind speeds of 52mph. The forecast track of Oma has now become convoluted, and, after initially tracking south-west through today, is expected to turn to the north, then north-west.

Discussion

Oma has weakened further to a Category 1 tropical cyclone (sustained winds of 52mph). Oma is expected to undergo modest strengthening over the next few days, before a major mid-latitude upper trough begins to influence the storm's track. EPS output is now showing some convergence, with the trough causing Oma to stop, then double-back on its own track, before accelerating away to the north-west later in the weekend and into next week, all the while remaining clear of land.

Expected Impacts

The latest forecast track for Oma keeps the system over open waters, with only potential impacts on maritime shipping.



This forecast may be amended at any time

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Typhoon Wutip (Northwest Pacific)

Weather

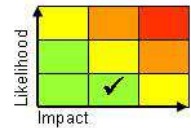
Typhoon Wutip is located near 8.6N, 146.8E at 0300Z, and was moving northwest at 15mph. Sustained winds associated with Wutip are 85mph, with gusts to 140mph, and further modest strengthening of the system is likely in the coming days as it continues on a west-northwesterly track.

Discussion

Wutip continues to churn away over the open waters of the central Pacific. There is initially very good agreement that the system will continue in a west-northwesterly track, before spread increases in its track from later in the weekend/early next week. Southern portions of the Marianas Islands, including Guam, are subject to tropical storm warnings as winds increase during the passage of Wutip to the S.

Expected Impacts

The forecast track of Wutip keeps it over open waters until the weekend, at which point Wutip could come close to the southern tip of the Marianas Islands, including Guam. The expected track now would preclude landfall, but heavy rain and strong and gusty winds could impact these islands.



Europe

Parts of central and SE Europe including the Balkans and Italy as well as Tunisia and northern Libya

Weather

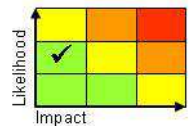
Cold wave intensifying through today and into the weekend. Temperatures 5-10°C below normal. Snow is likely for parts of SE Europe – some heavy snow likely in Istanbul tomorrow. Over the Mediterranean, frequent heavy showers/thunderstorms are likely to develop, which could bring very large amounts of rain to adjacent coasts, particularly southern Greece and Turkey. In addition, there is the potential for strong winds/gales to develop, producing rough seas and possible dust storms over Tunisia and Libya.

Discussion

The major pattern amplification taking place over Europe looks likely to result in a surge of cold air and trough extension over E Europe, resulting in a strong cold front pushing south across the Balkans and into the eastern Mediterranean. Models continue to differ in the details of the final trough extension/disruption over the Med, and thus the location of a depression that is expected to develop, but common to all models is the potential for snow and cold air significantly far south, accompanied by a deeply unstable environment over the central/eastern Med bringing the potential for strong winds around the periphery of the depression.

Expected Impacts

Widespread, severe frosts, with temperatures by day and night well below normal. Snow may be heavy for parts of northern Greece and Turkey, including Istanbul. Disruption to transport likely.



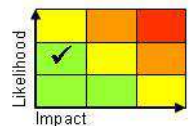
The Azores

Weather

A period of very strong winds is likely to affect the Azores through Saturday as storm Kyllian (as named by the Portuguese Met Service), passes to the north, bringing southerly winds gusting to 60-70mph at times. Winds should ease quickly into the early hours of Sunday.

Discussion

A major jetstream is expected to propagate ESE out of the Eastern Seaboard through Friday, with strong diffluence on the jet's forward side. An associated low is likely to remain a rather insipient feature until it crosses onto the cold side of the jet later Friday, and this, coupled with strong left-exit forcing is expected to lead explosive cyclogenesis (models offer falls of 25-30hPa in 24 hours). The track of the low will remain to the WNW of the Azores, though some very strong winds are likely well to the S of the low's centre.



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Expected Impacts

Strong winds will likely disrupt air travel to and from the islands, and rough seas will disrupt marine travel and cause localised coastal impacts such as flooding. Some minor damage to utilities and property possible, and blocked roads are possible from things such as fallen trees.

North America

Parts of eastern and south-eastern US

Weather

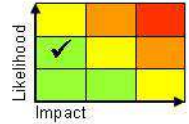
Remaining unsettled in this area, with heavy rain continuing into the weekend. Further south, the focus will be on heavy rain, and later Saturday and into Sunday, the potential for severe thunderstorms/tornadoes in the south. A further 100-200mm of rain is possible in some areas. Conditions should largely improve by the end of the weekend, as high pressure builds east across the area.

Discussion

A major trough extension across the W of the contiguous US has set up a semi-persistent period of south-westerly upper flow. This has led to a frontal boundary across parts of the E US, which has produced copious amounts of rainfall over the last week or so. Later today, and into the weekend the pattern will finally begin to shift as the trough described above extends, and disrupts, leading to a cyclogenesis event along the stalled frontal boundary. Ppn associated with this will once again be heavy. The low and associated frontal systems should then start to come E into the weekend, though not before conditions become conducive to the development of severe thunderstorms in the S of the area during Saturday. As the trough/surface low, continues E, gph and MSLP builds rapidly to the rear, with better conditions developing by the end of the weekend.

Expected Impacts

Continuing risk of flash-flooding and landslides. Disruption to travel/transport is also likely. Damage from severe thunderstorms, including large hails, very strong winds and a few strong to severe tornadoes.



Central America and Caribbean

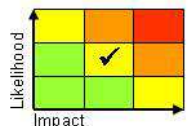
Nil significant.

South America

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

Weather

Frequent heavy showers and thunderstorms are expected to continue across the northern Andes through the next week, extending into Bolivia. Up to 100 mm of rain is possible each day in isolated locations (falling within the space of a few hours) with some places seeing a further 200-250 mm of rain over the next week, which is significantly higher than the monthly average.



Discussion

On Thursday 14th February NOAA declared weak El Nino conditions in the Pacific (although the Australian Bureau of Meteorology maintains ENSO neutral conditions). Along the South American Pacific coastline north of NE Peru there are positive SST anomalies (as often seen on El Nino events), 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

Further flash flooding and landslides are a significant threat in the mountainous areas, even for places downstream of the mountains (where it may have been dry) as rainfall draining off the mountains causes usually dry rivers to rapidly rise and fall. Parts of Peru and Bolivia appear to have been badly affected so far, with a state of emergency declared in a number of provinces. Information on further impacts from the ongoing storms has been difficult to come by in recent days, so we tentatively reduce this event from amber to yellow (likelihood reduced to medium).

This forecast may be amended at any time

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South-east Brazil, E Paraguay, far NE of Argentina and Uruguay

Weather

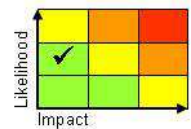
A spell of severe thunderstorms is expected to develop across the southwest of this from today, and then transfer northeastwards over the coming week. Rainfall totals in isolated locations may reach 50-100mm, with much of this falling in a short period of time; in addition other hazards associated with severe thunderstorms will be present.

Discussion

A southward extrusion of the monsoon plume across this region will begin to be engaged by a shortwave upper trough in the sub-tropical jet stream tomorrow. This will result in an active band of severe thunderstorms moving northeast across this region.

Expected Impacts

Potential for flash-flooding. In addition large hail, frequent lightning, strong, gusty winds and the odd tornado may bring significant but highly localised impacts. Later in the week as the severe thunderstorms reach some of the more populated and mountainous cities along Brazils Atlantic coastline (such as Sao Paulo), landslide will become an increased threat.



Africa

Tunisia and north Libya – See Europe

Northern Mozambique, Malawi and Zambia, as well as Tanzania

Weather

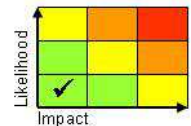
Heavy showers and thunderstorms are expected in places over the next week, with locally torrential downpours bringing 50-100mm of rain within a day, much of which will fall in a few hours. Morogoro in Tanzania reported 118mm of rain Thursday, much of which fell in a short space of time. If correct, this would be more than the average amount of rainfall that the city would expect in all of February.

Discussion

A mid-latitude cold front has stalled across this region with a plume of warm, moist air just ahead of it. As has been the case in recent days, this plume is forecast to be the source for further severe thunderstorms across the area.

Expected Impacts

Heavy rain and thunderstorms bring an increased risk of flash flooding and landslides. Transport and utilities may be temporarily affected. Strong gusty winds associated with these storms may cause hazardous conditions over areas of open water (such as Lake Malawi).



Middle East

Nil significant.

Asia

Marshall Islands, Caroline Islands and Mariana Islands – See Tropical Storm Wutip

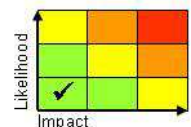
Northern India, Nepal and perhaps northern Pakistan

Weather

A band of heavy rain and mountain snow above 2000 M will run east through this zone between next Tuesday and Thursday. 25-50mm of rainfall is expected quite widely on the southern slopes of the Himalayas, it is uncertain as to the extent that this will affect Pakistan. A further 50-100cm of snow is forecast to fall over the mountains.

Discussion

A sharp upper trough in the sub-tropical jet will engage a high wet bulb potential temperature plume drawn off the Arabian Sea. In addition to the mass ascent caused by the trough and warm advection, strong orographic enhancement of the precipitation will take place as deep southwesterly flow runs into the Himalayas. The degree to which the interaction of the trough will take place over Pakistan is still uncertain, with the GM offering the wettest and snowiest solution for this region.



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Expected Impacts

Impacts from the heavy rain would be greatest across northern Pakistan and northwestern India was the heaviest precipitation to extend this far west (still uncertain), here flash and fluvial flooding could occur (following recent heavy rain in this region). The heavy snowfall over the mountains will severely disrupt travel across high mountain passes, increase the risk of avalanche and lead to localised building damage from things such as collapsed roofs due to the weight of laying snow.

Australasia

Nil significant.

Additional information

Nil.

Issued at: 220845 UTC **Meteorologist:** Jason Kelly

Global Guidance Unit

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