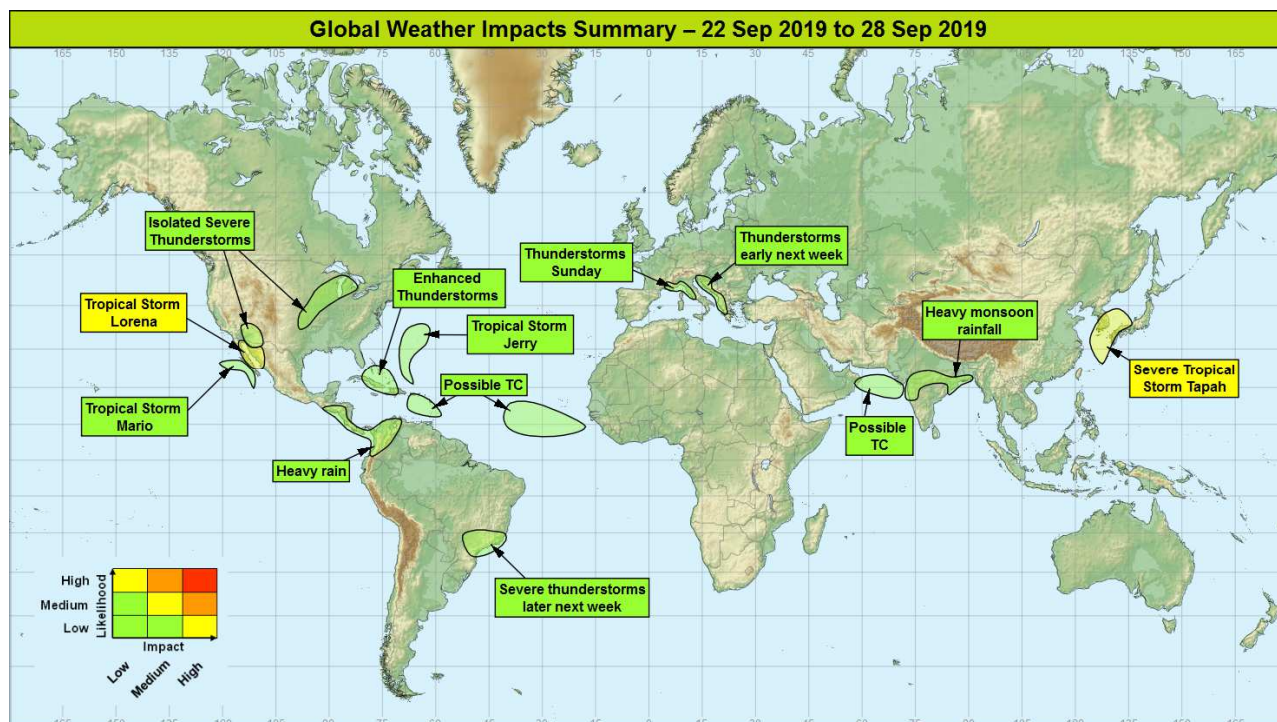


Global Weather Impacts – Sunday 22nd to Saturday 28th September 2019

Issued on Sunday 22nd September 2019

HEADLINES

- The tropics are very active with a number of named systems and areas of interest.
- Lorena has made landfall in west Mexico with Tapah impacting South Korea and Japan.
- Jerry could affect Bermuda during Tuesday and Wednesday.



DISCUSSION

Tropical Cyclones

Tropical Storm Lorena – Eastern North Pacific Weather

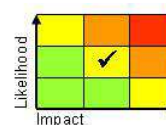
Having made landfall over Baja California, Lorena continues to weaken as it moves over the Gulf of California and into mainland Mexico. There is still a chance of damaging winds early on Sunday but overall this risk is reducing. Heavy rainfall over parts of northwest Mexico is likely to be the main hazard during Sunday and into Monday with 100-150mm possible in places.

Discussion

There is some uncertainty regarding Lorena's evolution over the next day or so but as the system is already interacting with land it should continue to weaken while slowly tracking north.

Expected Impacts

Flash flooding is likely to be the main impact with a reducing risk of damaging winds.



This forecast may be amended at any time

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Severe Tropical Storm Tapah – Western North Pacific

Weather

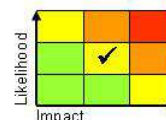
Severe Tropical Storm Tapah is now over the East China Sea to the southwest of mainland Japan. Over the coming days Tapah is forecast to track north and then northwest into the Sea of Japan bringing torrential rain and potentially damaging winds to parts of South Korea and Japan. The heaviest rainfall is expected to be over eastern South Korea and the southwest of Japan over the next couple of days with a further 200-300mm of rainfall in places. Tapah is likely to have weakened by the time it reaches the north of Japan in the next few days but will still bring a spell of wet and windy weather.

Discussion

There is still the potential for Tapah to undergo another period on intensification early on Sunday while over the East China Sea. However, as it moves further north vertical wind shear will increase, this combined with interaction with land will help the system gradually weaken. Model agreement is fairly good in its forecast track over the next few days.

Expected Impacts

Increased risk of flooding, and localised landslides disrupting transport and possibly disabling communities. Risk of minor storm surge inundation, particularly for the island of Tsushima. Localised wind damage is possible and rough seas will impact marine activities.



Tropical Storm Jerry – North Atlantic

Weather

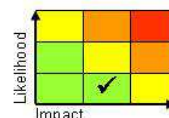
Tropical Storm Jerry is now to the north of Puerto Rico and is forecast to continue to track north over the next few days. The system has weakened from hurricane strength over the last 24 hours. Jerry still looks likely to track close to Bermuda this week, most likely later on Tuesday and into Wednesday. Its intensity uncertain; there is a small chance that Jerry could intensify to into a hurricane again in the vicinity of Bermuda bringing torrential rain and potentially damaging winds.

Discussion

Jerry has become less organised and weakened back below hurricane strength. There is a consistent signal that it will track (generally) northwards over the coming days. As it approaches Bermuda it is likely to be engaged by an extending mid-latitude trough. This potentially causing the system to intensify before being accelerated northeastwards. There has been a slight westwards shift in the track of Jerry which makes direct landfall over Bermuda less likely.

Expected Impacts

Low risk of damaging winds and heavy rain over Bermuda during Tuesday and Wednesday.



Tropical Storm Mario - Eastern North Pacific

Weather

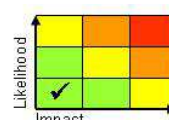
Mario is currently around 350 miles south of Baja California over the Pacific Ocean. At this stage landfall looks unlikely with its forecast track staying to the west of Mexico. There is a small chance of the system making landfall as a tropical depression early next week.

Discussion

As Mario heads towards cooler waters in an area of moderate to high vertical wind shear any intensification looks unlikely. Whilst some models take the system further east than official guidance into Baja California it is only a very weak depression.

Expected Impacts

Small risk of torrential rain and disruptive winds.

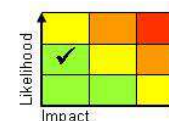


The following areas are being monitored for potentially impactful developments through the forecast period:

North Atlantic and Caribbean Sea

Weather

An area of thunderstorms is expected to become gradually more organised as it approaches the Windward Islands over the next 24 hours. There is a moderate chance that it could develop into a tropical storm by the time it reaches the Windward Islands. Regardless of strength, heavy showers/thunderstorms (50-75mm in a few hours) and squally winds are expected over some of the Windward Islands on Sunday.



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Discussion

A tropical wave is moving quickly westwards, conditions initially are favourable for some development but it will have to be quick if it is to attain TS status before encountering more hostile wind shear conditions over the Caribbean Sea. Regardless, an area of heavy showers/TS is expected to affect at least some of the Windward Islands on Sunday and possible Puerto Rico on Monday as the wave moves through.

Expected Impacts

Slightly increased risk of flash flooding, low risk of very localised wind damage.

North Atlantic

Weather

A tropical wave currently running into the North Atlantic from West Africa makes the formation of a tropical storm in this area favourable over the next couple of days. During this period any development is most likely to remain over the open ocean.

Discussion

An AEW running into the Atlantic will encounter favourable conditions (low VWS and high SSTs) over the next few days making a development likely.

Expected Impacts

None at this stage.



Arabian Sea

Weather

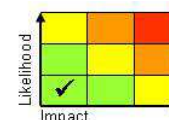
An area of organised heavy showers and thunderstorms over the northeast Arabian Sea looks favourable for tropical storm formation over the next couple of days. Any resulting system will be steered west towards Oman during midweek but most likely will weaken significantly by the time landfall is possible. There is a very small risk of heavy rain and strong winds arriving over parts of Oman from Tuesday.

Discussion

The monsoon low affecting parts of central India has moved into the Arabian Sea this weekend. There is quite a strong signal now from global models and ensembles for tropical cyclogenesis, although anything that does form is signalled to dissipate quite quickly (in the face of strengthening shear), with only a small chance of rain (and even lesser strong winds) reaching Oman.

Expected Impacts

Rough seas in the northern Arabian Sea, with a small risk of very localised flash flooding over parts of coastal Oman should the system make it this far.



Europe

Southern Europe

Weather

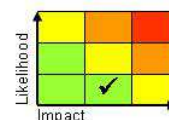
An unsettled few days (although only for a day at each individual location), with heavy showers and thunderstorms breaking out across southern France and Italy on Sunday and then parts of Southeast Europe (mainly Balkan coastline) on Monday. These thunderstorms could produce 75-150 mm of rainfall in a few hours, along with frequent lightning, large hail and gusty winds.

Discussion

Sharp shortwave upper troughing will engage a warm plume sourced both from North Africa and further southeast over the Spanish plateau. This has generated organised and severe thunderstorms over near NE Spain and SW France during Saturday with this area slowly migrating E. Latterly forcing becomes weaker, but profiles suggest storms could become self sustaining with linear MCS developing. A larger scale trough and cold front will catch up the warm plume as it continues to travel east towards the Balkan region on Monday, with further forcing triggering showers, primarily focussed on the Dinaric Alpine region where uplift over terrain favours destabilisation.

Expected Impacts

Flash flooding. Large hail and frequent lightning are possible, perhaps disrupting travel and power supplies. Increased risk of landslides, particularly over the Dinaric Alps early next week.



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North America

Central parts of the USA and the far north of Mexico

Weather

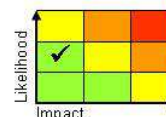
Severe thunderstorms are expected to break out over central parts of the US moving up towards the Great Lakes during Sunday. On Monday a separate area of storms is likely to develop over the far southwest of the US, and parts of north Mexico. On all occasions, large localised rainfall amounts (75-100, locally 150mm) are expected, with a threat of isolated tornadoes and large hail.

Discussion

A trough will engage a high WBPT plume over central parts of the US on Sunday. This bringing an increased likelihood of isolated supercells, tornadoes and damaging winds/hail, given the very energetic environment. On Monday, a separate trough extending to lower latitudes will engage the plume over Mexico associated with ex-Lorena to generate severe storms here too.

Expected Impacts

Very localised but potentially severe flash flooding, and a lesser risk of wind and or hail damage to property and crops.



Central America and Caribbean

Windward Islands and Puerto Rico – See *Tropical Cyclones* section.

Bahamas, Turks and Caicos Islands, Cuba and Hispaniola

Weather

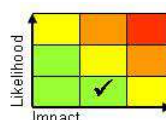
Intense but localised downpours are expected to affect these islands on Sunday before conditions improve through this week. A further 100-150mm is possible, but of course much of this is likely to fall in the surrounding ocean with only a small chance of land areas seeing these totals. Heaviest rain is likely to be south of Grand Bahama and the Abacos, where more sporadic (but still heavy) showers are likely.

Discussion

Tropical Storm Jerry passing to the northeast of the islands will allow a well-defined zone of low-level moisture convergence to become established across the region, forced by a low latitude cut-off vortex, generating persistent and slow moving showers and thunderstorms.

Expected Impacts

Flash flooding, especially across the Turks and Caicos Islands.



Panama, Costa Rica, Nicaragua, El Salvador and Guatemala – See *South America* section.

South America

Southern Brazil

Weather

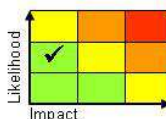
A zone of enhanced showers and thunderstorms is expected to develop towards the end of this week, with 50-100mm of rain possible in a few hours, accompanied by frequent lightning, locally large hail and a risk of tornadoes. Populated cities such as Sao Paulo, Curitiba and Rio de Janeiro are at risk of being impacted.

Discussion

The usual synoptic set-up of warm air advection returning southwards in the wake of a dissipating South Atlantic Convergence Zone further north, being engaged by a potent shortwave upper trough, is likely to generate severe thunderstorms. Forecast profiles indicate large amounts of CAPE and strong column shear, with ingredients for intense showers as well as hail and possible supercells.

Expected Impacts

Flash flooding of homes/businesses possible, particularly in more urbanised areas. Localised hail and wind damage.



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Colombia, Costa Rica, Panama, Nicaragua, El Salvador and Guatemala

Weather

Showers and thunderstorms may be more widespread, frequent and intense than usual over the region during the next few days. Daily accumulations of around 75-125 mm are possible, with up to 350 mm over the course of a week in places.

Discussion

The MJO is expected to cross South America over the next 5-7 days enhancing rainfall across the ITCZ, especially across western parts of the continent.

Expected Impacts

Increased incidents of flash flooding with perhaps an increase in the risk of landslides.



Africa

Nil.

Middle East

Oman – See *Tropical Cyclones* section.

Asia

Central India

Weather

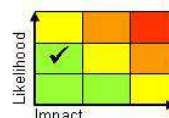
Heavy rainfall early next week associated with the monsoon is expected to generate a zone of 200-300 mm over a couple of days, before heading the system heads out into the Arabian Sea

Discussion

Another monsoon depression is forecast to run across the centre of the country, leading to a swathe of heavy rain before it exits out into the Arabian Sea. This region has mainly (way from the coasts) seen below normal rainfall over the past 30 days, the previous monsoon depression affecting areas further N.

Expected Impacts

Likely flooding, but not too much more than can be expected at this time of year.



Parts of India and southern Bangladesh

Weather

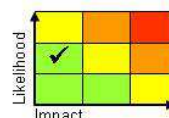
Enhanced monsoon rainfall expected over the next few days with 50-100mm per day and up to 500mm in some places by the middle of next week. In addition, over parts west India (in the vicinity of Mumbai), heavy rainfall is expected over the next couple of days in association with the depression now over the Arabian Sea with 200-300mm possible.

Discussion

Another depression in the withdrawing monsoon trough is signalled to develop over India early next week. This will induce a southerly flow over the Bay of Bengal which will help focus heavy rain near the coast of Bangladesh and northeast India.

Expected Impacts

Increased likelihood of both flash and river flooding.



South Korea and Japan – see *Tropical Cyclones* section

Australasia

Nil.

Additional information

Nil.

Issued at: 220720 UTC

Meteorologist: Chris Bulmer / Brent Walker

Global Guidance Unit

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