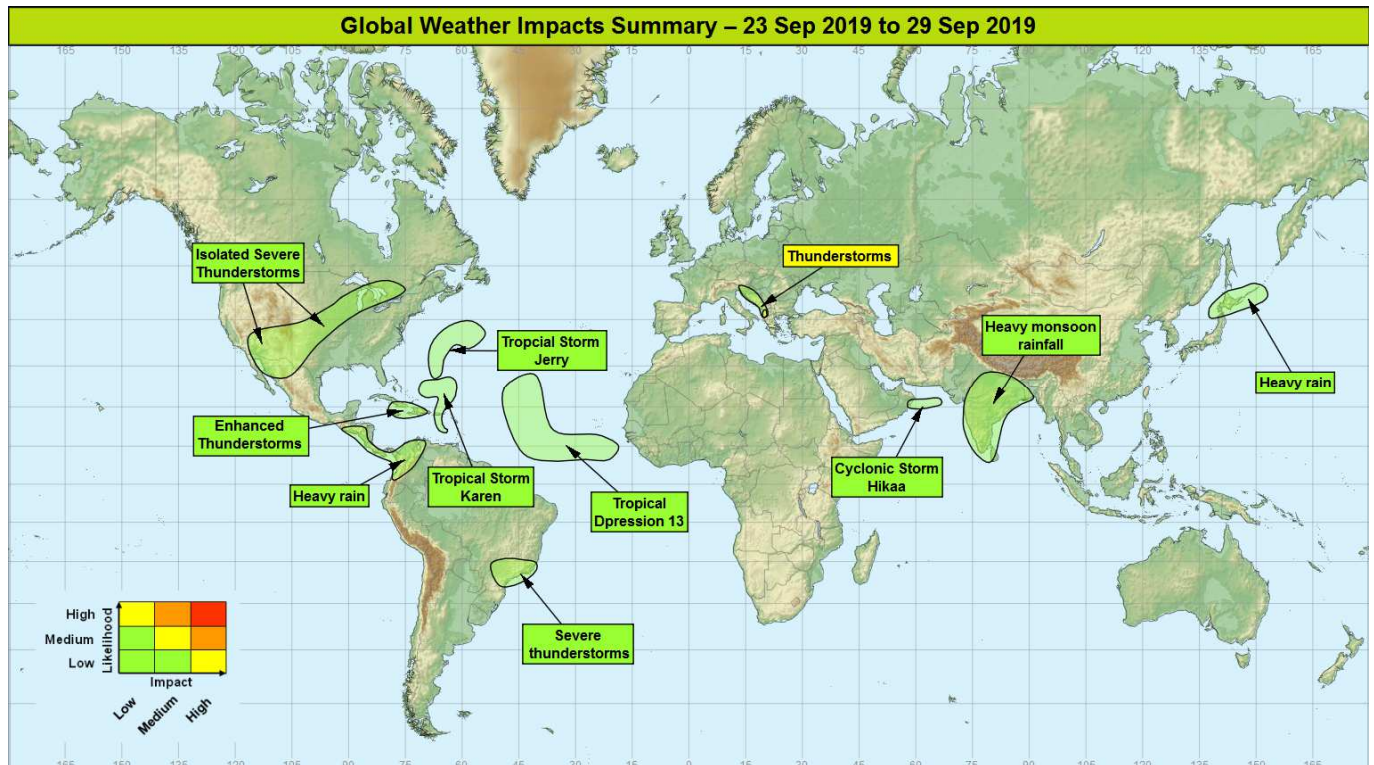


Global Weather Impacts – Monday 23rd to Sunday 29th September 2019

Issued on Monday 23rd September 2019

HEADLINES

- The tropics remain very active with a number of named systems and areas of interest.
- Thunderstorms likely across SE Europe.
- Tropical Storm Karen is expected to cross Puerto Rico on Tuesday with Tropical Storm Jerry possibly affecting Bermuda during Wednesday.



DISCUSSION

Tropical Cyclones

Tropical Storm Jerry – North Atlantic

Weather

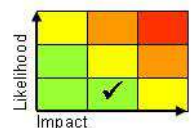
Tropical Storm Jerry now lies roughly midway between The Bahamas and Bermuda. There is still a fair amount of uncertainty as to the exact track Jerry will take, however the most likely outcome is for the system to pass close to Bermuda during Wednesday bringing a spell of heavy rain – around 50 to 75 mm. Damaging winds now appear to be less of a threat

Discussion

It is clear from imagery that Jerry is being affected by upper level shear, which will act to limit significant strengthening. As it approaches Bermuda it is likely to be engaged by an extending mid-latitude trough. There remains a fair degree of spread in forecast tracks with some solutions allowing Jerry to pass over the islands, whereas the majority have a track to the north and west of Bermuda.

Expected Impacts

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



This forecast may be amended at any time

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319

VPN: n6225 4319 Email: ggu@metoffice.gov.uk

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

Tropical Storm Karen

Weather

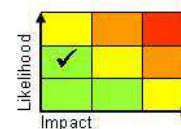
Karen developed on Sunday close to Grenada in the southern Windward Islands. Karen is likely to remain a tropical storm as it moves into the Caribbean, then turn NW then, most likely passing close to Puerto Rico on Tuesday, bringing damaging winds and very heavy rainfall.

Discussion

Despite looking disorganised on imagery, Karen has a well defined circulation. Moderate shear and dry air in the vicinity of Karen are likely to limit development, indeed the system may well weaken below Tropical Storm intensity as it likely crosses the eastern Caribbean toward Puerto Rico.

Expected Impacts

Strong winds and heavy rainfall likely across Puerto Rico on Tuesday. Some flash flooding is possible.



Tropical Depression Thirteen

Weather

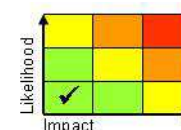
An area of heavy showers and thunderstorms, south of the Cabo Verde Islands, has become better organised over the past 12 to 24 hrs and is now classified as a tropical depression. This depression is expected to strengthen into a tropical storm through this week, possibly becoming a hurricane as it moves gradually west across the tropical Atlantic Ocean.

Discussion

An AEW has steadily become better organised and is now the thirteenth tropical system this season. A low shear and high SST environment suggest steady intensification will take place in the coming days, with the system probably becoming a tropical storm by the end of Monday and possibly a hurricane during this coming week. There is good agreement that the track of the cyclone will remain away from land areas through this week.

Expected Impacts

No threat to land areas over the next 7 days.



Cyclonic Storm Hikaa – Arabian Sea

Weather

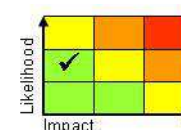
Cyclonic Storm Hikaa will continue to move west across the Arabian Sea towards Oman. The cyclone could strengthen further in the short-term, but by the time it reaches Oman, probably during Tuesday and Wednesday, Hikaa is likely to be a much weaker system. Despite the forecast weakening, Hikaa could still bring a spell of heavy rain to coastal parts of Oman, with 30-50 mm falling in places.

Discussion

Further intensification of Hikaa is likely for the next 12 to 24 hrs as the cyclone moves west across the Arabian Sea. Thereafter, environmental conditions become more hostile – higher shear and somewhat lower SSTs – and the cyclone should weaken into little more than a depression by the time it reaches Oman on Tuesday.

Expected Impacts

Rough seas in the northern Arabian Sea, with a small risk of localised flash flooding over parts of coastal Oman should the system make it this far. The winds associated with this system could well lift large areas of dust which may impact the southern Persian Gulf.



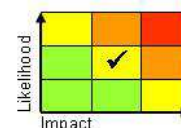
Europe

South-eastern Europe

Weather

An unsettled few days (although only for a day at each individual location), with heavy showers and thunderstorms breaking out across 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



This forecast may be amended at any time

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319

VPN: n6225 4319 Email: ggu@metoffice.gov.uk

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

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. Parts of Albania which were affected by strong earthquakes on Saturday could be affected.

North America

SE Canada, Central parts of the USA and the far north of Mexico

Weather

Several bouts of severe thunderstorms and heavy rainfall are likely at times this week in a broad zone from NW Mexico to the Great Lakes region and into SE Canada. On all occasions, large localised rainfall amounts (75-100, locally 150mm) are expected, with a threat of isolated tornadoes and large hail. It is likely that the remains of ex-tropical systems Lorena and Mario will contribute to these events.

Discussion

A zone of high WBPT air will be re-enforced by the remains of ex-Lorena, and then Ex-Mario this week. With a broadly cyclonic upper pattern across western North America pulses of activity will form, then run north-east this week.

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.

Cuba, Jamaica and Hispaniola

Weather

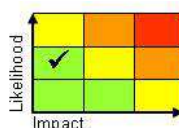
Enhanced shower and thunderstorm is expected to continue here for much of this week. Locally 30-50 mm of rainfall is possible each day, with up to 150 mm possible in places through the week.

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

Risk of flash flooding with landslides possible in mountainous areas.



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

South America

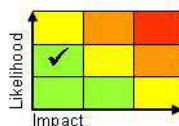
Southern Brazil

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 Paolo, 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.



This forecast may be amended at any time

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319

VPN: n6225 4319 Email: ggg@metoffice.gov.uk

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.

Expected Impacts

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

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**Much of India, parts of Sri Lanka and 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 central northern India (in the vicinity of Mumbai), heavy rainfall is expected to be further enhanced by to westward passage of monsoon low pressure systems.

Discussion

Within the broadly enhanced monsoon rainfall, one, possibly two monsoon depressions are signalled to develop and move west. The enhanced rainfall signal decreases generally toward the end of the week, although it's possible a further system may be forming over the Bay of Bengal by next weekend.

Expected Impacts

Increased likelihood of both flash and river flooding.

**Japan****Weather**

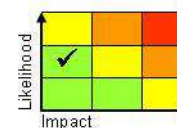
The remnants of Tropical Storm Tapah will cross northern Japan bringing a spell of heavy rain and strong winds. Around 50-100 mm of rain is expected to fall on Monday.

Discussion

Tapah has now undergone extra-tropical transition and is now a mid-latitude depression. This will quickly cross northern Japan today giving a spell of strong winds and heavy rain.

Expected Impacts

Flash flooding is possible.

**Australasia**

Nil.

Additional information

Nil.

Issued at: 230720 UTC

Meteorologist: Mark Sidaway / Brent Walker

Global Guidance Unit

This forecast may be amended at any time

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319

VPN: n6225 4319 Email: ggu@metoffice.gov.uk

© Crown copyright 2019. This information is for use by UK government only. It does not replace the advice and guidance provided by the official meteorological service for this region. Where there is a requirement to share this information with non-UK government agencies, please contact the Met Office to discuss.