September 17, 2020

Event Reports: Hurricane Paulette, Hurricane Sally and the wildfires in the Western States of the US

Shortly after the climatological midpoint of the hurricane season the tropical Atlantic presented itself quite active, sporting two hurricanes (Paulette and Sally) that affected land and one system (Teddy) that may come close to Bermuda in about week and poses an (albeit speculative) long-term threat to the Canada Maritimes.

Hurricane Paulette

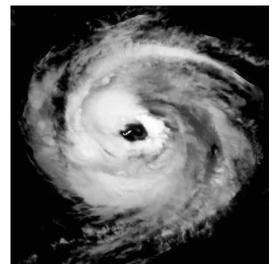
Paulette, similar to Hurricane Laura in late August, was a Cape Verde type storm. These storms emerge from tropical waves that form on the Intertropical Convergence Zone and move off the West African Coast near or

			Current Data				24-hr Ahead Projections			
		15 Sep, 2020 8:18 GMT				16 Sep, 2020 8:18 GMT				
System	Basin	Lat	Long	Wind	Cat	Lat	Long	Wind	Ca	
PAULETTE	N Atlantic	35.7 N	62.3 W	90 kts	2	39.8 N	54.4 W	105 kts	3	
RENE	N Atlantic	26.9 N	49.3 W	25 kts	TD		DISSIPA	TED		
SALLY	N Atlantic	28.9 N	87.6 W	85 kts	2	29.6 N	88.4 W	90 kts	2	
TEDDY	N Atlantic	13.2 N	45.0 W	45 kts	TS	14.8 N	48.3 W	70 kts	1	
VICKY	N Atlantic	19.5 N	29.9 W	45 kts	TS	21.4 N	32.7 W	35 kts	TS	
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Graphic: Tropicalstormrisk.com

south of the Cape Verde islands to travel with the trade winds over the Atlantic. Depending on the location of the different anticyclones (high pressure systems) and low-pressure areas situated over the Atlantic, the storms are dragged over the ocean. Often a certain steering towards the Lesser Antilles and the US Coast takes place. In addition to the steering flow of the environmental winds, hurricanes drift north-westward due to a process called beta drift, which arises because the Coriolis force varies with latitude, hence affecting the air masses advected by the storm differently in its

different quadrants and resulting in gyres that push the storm north-westward.



Bermuda was the only landmass that Hurricane Paulette could find on its journey over the Atlantic. On September 14, Paulette was a direct hit, and the entire Island was embedded in its eye for some time. The storm intensified and expanded just before leaving Bermuda. Based on initial assessments, there are fewer road obstructions and damages than feared, and widespread power outages are already being repaired.

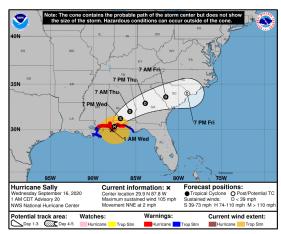
Hurricane Paulette will **not cause any impact** on the Solidum portfolios.

Bermuda completely embedded in Hurricane Paulette's well-defined eye during its passage over the island on September 14, as captured by NOAA's GOES-East. Credit: NOAA



Hurricane Sally

Hurricane Sally originated over the Bahamas and crossed southern Florida as tropical depression. It gained strength over the Gulf of Mexico and reached category 2 status on the Saffir Simpson scale before it made its final approach to the Alabama coastline. During its lifespan, the hurricane had difficulties to establish a complete eyewall in the face of moderately high wind shear of 20 – 25 knots from upper-level winds out of the west, a fortunate development as the first measured wind readings at landfall were below expected windspeeds associated with an upper level cat 2 storm given its 965 mbar central pressure.



Hurricane Sally's forecast track shortly before landfall on September 16, as provided by NOAA's National Hurricane Center

Given the storm's slow forward movement, storm surge and rainwater induced inland flooding seem to be the

major concern. As the event is still unfolding with the storm currently moving over Alabama and Georgia, a prediction about ultimate insured losses is premature. Modelling firms have not yet issued public estimates of the insured market loss for Sally's whole track, but given the storm's physical parameters we estimate the insured loss to be a lower single digit billion figure. It is highly unlikely that cat bonds will suffer principal loss from this storm. Some aggregating cat bonds may incur a modest erosion of their retentions.

Albeit it is too early to provide a final judgment on the private transactions in the portfolios of the Solidum ELS SAC2 and SAC3, as there is more time required to gain information and fully assess the impacts, reinsurance and retrocession contracts in these funds appear to be safe, too. Especially the private transactions covering energy risks are not affected by Sally due to explicit exclusion clauses.

We also do not expect that Sally will introduce a large price volatility on the weekly cat bond marks through a widening of bid /ask spreads.

Based on our initial assessment, the impact on Solidum's portfolios is expected to be minimal.

Wildfires in California, Oregon and Washington State

Climatic conditions similar to the years 2017 and 2018, i.e. humid winter months with ample rain and snow allowing vegetation to grow and a trend to dry and hotter summer months, provided a lot of fuel for wildfires, which in most cases so far have been ignited by natural sources. Generally the wildfire peril is not a new threat to the Western States of the US – it existed already at the time before the white man entered the area - but its economic consequences increased in recent years: Sizable population growth, socio-economic pressure to settle away from larger cities as well as the preference of many people to live "in the nature" add to the changing atmospheric conditions to build the potential of increased loss figures.



Overview on active fire incidents as provided by CalFire (September 16) in the Western States of the US.

As the primary insurers have re-underwritten their portfolios following the disastrous years 2017 and 2018, reinsurers introduced higher retention levels as well as stricter event definitions, and considering the fact that substantially fewer structures have been burnt and the fires avoided "expensive" areas so far, we expect the price tag for the insurance industry to remain below the one of the previous years.

As of today, we do not expect a negative impact on our portfolios. We recognise the fact that the wildfire-season will last for approximately two further months. We continue to monitor attentively these wildfires and will provide updates if warranted.

The portfolio management team remains at your disposal for any additional questions.

With kind regards
The Solidum Management Team