



Insurance Instruments Aid the Recovery from the Active 2017 Atlantic Hurricane Season

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The 2017 Atlantic Hurricane Season was remarkable in many ways, breaking many meteorological records and surpassing seasonal forecasts. 2017 was the first year on record that the U.S experienced three Category 4 or higher landfalls (Hurricanes Harvey, Irma and Maria, collectively known as the HIM events), September 2017 was the single most active month on record, and the season's Accumulated Cyclone Energy was more than double the 1981-to-2010 historical median. Statistics aside, the cumulative impact of the HIM events caused widespread damage throughout the Caribbean and parts of the U.S that will take years, if not decades to recover from. Some financial support for the recovery was available through a variety of insurance instruments based on ex-ante probabilistic risk assessments. The rapid mobilisation of funds was provided by risk policies taken out by member Caribbean Islands with the Caribbean Catastrophe Risk Insurance Facility (CCRIF), whilst the traditional primary insurance industry and international reinsurance market will continue to settle property damage claims. The Federal Emergency Management Agency (FEMA) were also able to recover the full \$1.042 billion reinsurance from the privately placed National Flood Insurance Program (NFIP) reinsurance program. Nonetheless, much of the damage sustained in the Caribbean and from the flooding component of Hurricane Harvey in Texas, remains uninsured.

In this review of the HIM events we examine the characteristics that contributed to each event being described as 'an extreme event', the difference between insured and insurable modelled loss estimates and describe the challenges of modelling loss estimates for the HIM events in real-time. We examine the evolution of AIR Worldwide's loss estimates prior to the hurricane's making landfall, immediately after landfall and then post-event when the ability to re-analyse meteorological parameters and conduct field damage surveys allowed for further refinement to the loss estimates. AIR Worldwide is a leading provider of catastrophe models and software solutions to the insurance industry.