Actuaries Climate Index™ Value Reaches New High With Winter 2016–17

Data Show Extreme Weather Events Continue to Increase Across Canada and the United States

Washington, D.C., Arlington, VA, Schaumburg, IL, and Ottawa, ON (October 5, 2017)—Organizations representing the actuarial profession in Canada and the United States reported today that the Actuaries Climate Index™ reached a new record high in winter 2016–17, following the record value measured in fall 2016. The change reflects increasing deviation of weather extremes and sea levels from historically expected patterns for the two countries.

“This hurricane season has brought renewed attention to the question of whether extreme weather is increasing, and for a broad swath of North America, the Actuaries Climate Index data were trending in that direction to February 2017,” said Caterina Lindman, chair of the Climate Change Committee.

The most recent five-year moving average Actuaries Climate Index value for winter 2016–17 is 1.14, up from 1.07 the previous quarter. This value is the highest level recorded and expresses units of standard deviations from the mean for the 30-year reference period of 1961 to 1990 for the United States and Canada combined.

“The record five-year moving average value for the index was driven by the increase in the seasonal values over the last six seasons,” said Lindman. “As shown in the graph, the last six seasons have had a quarterly index value over 1.50, compared to the 30-year reference period, which had no index values above 1.00. Extreme weather events have multiplied beyond what one would expect based on the benchmark climate parameters.”

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The Actuaries Climate Index was developed by the Climate Change Committee, which was formed through a partnership of the American Academy of Actuaries, the Canadian Institute of Actuaries, the Casualty Actuarial Society, and the Society of Actuaries. The index is based on analysis of seasonal data from neutral, scientific sources for six different index components collected since 1961, and is designed to provide actuaries, public policymakers, and the general public with objective data about changes in the frequency of extreme climate events over recent decades. The index measures changes in extremes of high and low temperatures, high winds, heavy precipitation, and drought, as well as changes in sea level.

Updated values are posted quarterly on ActuariesClimateIndex.org as data for each meteorological season becomes available. The organizations are also developing a second index, the Actuaries Climate Risk Index, to measure correlations between changes in the frequency of extreme events as measured by the index and economic losses, mortality, and injuries.

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About the Sponsoring Organizations

The [American Academy of Actuaries](https://www.actuaries.org) is a 19,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

The [Canadian Institute of Actuaries](https://www.cia-iac.ca) (CIA) is the national, bilingual organization and voice of the actuarial profession in Canada. Its 5,000+ members are dedicated to providing actuarial services and advice of the highest quality. The Institute holds the duty of the profession to the public above the needs of the profession and its members.

The [Casualty Actuarial Society](https://www.cas.org) (CAS) is a leading international organization for credentialing and professional education. Founded in 1914, the CAS is the world’s only actuarial organization focused exclusively on property and casualty risks and serves over 7,000 members worldwide. Professionals educated by the CAS empower business and government to make well-informed strategic, financial and operational decisions.

With roots dating back to 1889, the [Society of Actuaries](https://www.soa.org) (SOA) is the world’s largest actuarial professional organization with more than 28,000 actuaries as members. Through research and education, the SOA’s mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business and societal challenges. The SOA’s vision is for actuaries to be the leading professionals in the measurement and management of risk.