AbsoluteClimo Introduces Clim⊙Cats
Climate Catastrophic Risk Models

Introducing a Major Breakthrough: The World's First Catastrophic Risk Models
Linked To Skillful Climate Physics Predictions

HONOLULU (18 February 2019) - AbsoluteClimo, a world leading business-to-business climate modeling, forecasting and risk management company, today announces **Climo⊙Cats**, its climate catastrophic (cat) risk prediction models.

‣ **What are Clim⊙Cats?**

Clim⊙Cats are the world's first climate cat risk models linked to (G⊙TCHA's) skillful global climate physics predictions, enabling businesses to take views ex-ante for climate cat risk related decisions. Skill means **risk direction** forecast accuracy consistently better than a coin flip. Clim⊙Cats and G⊙TCHA are independent of university and government models, also an industry first.

Clim⊙Cats are products of G⊙TCHA's machine learning predictive engine, which links climate physics (e.g., temperature, rainfall, wind, etc.) with perils resulting in casualties and financial losses driven by climate change and variability. Clim⊙Cats accrue actual experience and knowledge over time which is essential to financial decisions made in a dynamic climate regime.

Clim⊙Cats probabilistically predicts casualties, losses and related details, such as:
• Global total climate-driven cat losses
• U.S. hurricane, tornado, flood damage, hail/wind/lightning, and fire acres burned cat losses
• U.S. flood casualties
• Australia cat losses from weather/climate events
• Europe flood cat losses
• Japan typhoon cat losses (% GDP)
• China typhoon cat losses
• ... and more ...

For 2019, Clim⊙Cats is forecasting near normal expected Global total climate-driven cat losses of **$153B** USD, with a probability range of $90B (best) to $257B (worst). See Figure 1. Clim⊙Cats correctly forecasted the 2018 (Figure 2) and 2017 (Figure 3) risk directions of Global total climate-driven cat losses.

‣ **Why Clim⊙Cats?**

Clim⊙Cats generates skillful annual climate-driven cat risk direction forecasts, with lead times up to three years.

In an October 2018 Price of Climate [report](#) by the Wall Street Journal, "***Climate Change Is Forcing the Insurance Industry to Recalculate***", the 2016 Fort McMurray, Alberta Canada wildfire "*hit insurance company Aviva PLC out of nowhere*" and "***Its actuaries long believed wildfire risk to homes in the area was almost nonexistent, it says***." The Journal said the fire forced "*100,000 people to evacuate and leaving insurers with $3 billion in damages to cover*" and quoted Toronto-based chief executive Maurice Tulloch of Aviva's international insurance division saying, "***The previous models wouldn't have envisioned it***."

• **The old blind cat is out of the bag:**

The 2018 Wall Street Journal report further added: "*Catastrophe models—computer algorithms that analyze disasters and property data to predict losses—grew more sophisticated over time.* **Their secret sauce was building databases of weather events going back decades. Climate change upends that strategy** *because scientists broadly believe the future is likely to be very different from the prior decades that are the basis for these models.*"

With the insurance industry [rethinking](#) cat modeling after 2017 disasters including hurricane Harvey, 2018 was another rough year for Insurance Linked Securities ([ILS](#)) especially with landfalling Atlantic hurricanes Florence and Michael, and typhoons in Hong Kong and Japan.

• **World leading pension fund scales back investments in climate change exposed risks:**

Artemis in December 2018 [reported](#) "***Ontario Teachers' pulls out of two funds as it downsizes ILS exposure***" and stated, "*One of the largest pension funds in the world with approximately C$190 billion of assets under management, OTPP has invested in the ILS market for more than a decade*"
...
"*We understand that after the market losses of the last two years, OTPP is set to significantly downsize its* **natural catastrophe-exposed ILS allocation** *and that the pension fund has already pulled back from two ILS funds as part of this process. We're told that some of the reason for this is* **performance related**, *but that there are broader concerns at OTPP related to how catastrophe risks are priced,* **notably in light of climate change risks**, *as well as how catastrophe losses are reported and reserved for.*"

• **Monte Carlo or bust? The trend is not your friend:**

Underperforming cat models often attempt to predict cat losses based on outdated approaches such as Monte Carlo simulations or trendline analyses. Monte Carlo simulations and trendline extrapolations struggle to capture the tail risk of the non-linear dynamic climate system.

Morgan Stanley [reminded](#) the world last week, we can no longer keep our fingers crossed or rely on antiquated models let alone almanacs, anecdotal banter or the folklore nonsense of groundhogs and Bermuda hurricane spiders: "***Climate disasters cost the world $650 billion over 3 years — Americans are bearing the brunt: Morgan Stanley***"

‣ **Clim⊙Cats For All**

Clim◉Cats are available to any business concerned about climate-driven catastrophic perils. AbsoluteClimo has an innovative business model based on performance and accountability.

"*Our risk modeling prowess and forecast skill speak for themselves. We are results oriented. What really sets AbsoluteClimo apart is our human talent: a rare combination of decades of research lab experience <u>and</u> forecast practitioner skill. Most climate model researchers and developers don't have the sometimes painful experiences gained from putting their own models into practice or for their own businesses as entrepreneurs. I'm very proud of our global team which spans hemispheres and continents, from sea to shining sea*," said Brendan Lane Larson (Climatologist, Physical Meteorologist, and Co-Founder of AbsoluteClimo).

Look for Clim◉Cats to expand this year to cover non-catastrophic climate risk, and for our forthcoming proprietary newsletter from our department of research.

Figure 1. Clim◉Cats forecast issued November 2018:

Clim◉Cats 2019 Global total climate-driven cat losses (in 2018 billions of USD)	
2019 expected total losses predicted:	$153
2019 total losses predicted range, best:	$90
2019 total losses predicted range, worst:	$257
2019 total losses normal:	$165
2019 total losses:	$TBD

risk direction

forecast

Figure 2. Clim◉Cats forecast issued November 2017:

Clim◉Cats 2018 Global total climate-driven cat losses (in 2018 billions of USD)	
2018 expected total losses predicted:	**$140**
2018 total losses predicted range, best:	**$95**
2018 total losses predicted range, worst:	**$212**
2018 total losses normal:	**$165**
2018 total losses:	**$155**

risk direction forecast ↓

Figure 3. Clim◉Cats forecast issued November 2016:

Clim◉Cats 2017 Global total climate-driven cat losses (in 2018 billions of USD)	
2017 expected total losses predicted:	**$213**
2017 total losses predicted range, best:	**$45**
2017 total losses predicted range, worst:	**$352**
2017 total losses normal:	**$165**
2017 total losses:	**$350**

risk direction forecast ↑

About AbsoluteClimo

AbsoluteClimo is a Honolulu headquartered private concern and part of Hawai'i's community of world renowned experts specializing in atmospheric and oceanic science, climate research and modeling. For more information visit us here or contact us at info@absoluteclimo.com.
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Climate is the accumulation of weather! ###