Geophysical Research Abstracts
Vol. 12, EGU2010-12890, 2010
EGU General Assembly 2010

Applicability of AOGCM simulations to insurance loss-oriented modeling of extra-tropical windstorms

Ivan Kuhnel
EQECAT, Paris, France (ikuhnel@eqecat.com)

The use of AOGCM simulation in the area of loss-modeling is a relatively new phenomenon.

Until recently the hazard generation of windstorm loss-oriented models has been based on one of two distinct types of methodology, namely the interpolation of measured gust wind speeds or various wind gust parameterization schemes applied to NWP-simulated wind fields.

While generally having a lower resolution than regional models, climatologically-driven century-long AOGCM simulations open new opportunities for the loss-modeling community. They allow to complement the accuracy of measured data with the spatial and temporal homogeneity of results of long AOGCM runs. Furthermore, they can provide a useful "second-opinion" and added value in the assessment of physical thresholds, frequency and clustering of storms.

In this presentation we shall discuss the challenges associated with the use of long run AOGCM results, as encountered by EQECAT during the development of their Eurowind 2008 model, as well as their ongoing investigations in the area of climate change and extra- tropical cyclone activity.