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**TSUNAMI CONSORTIUM OF UK INSURANCE COMPANIES
ANNOUNCE DEVELOPMENT OF CUSTOM BUILT FORECAST
FOR US LANDFALLING HURRICANES**

UK scientists have developed the first custom built forecast for US landfalling hurricanes as part of an initiative undertaken for the TSUNAMI consortium of UK insurance companies. The forecast predicts an above average level of activity in 1999, but less than in 1998. In 1998 seven tropical cyclones hit the US mainland making it the third most active year since records began in 1871.

The forecast was developed by Dr Mark Saunders and Dr Chris Merchant of University College London, working as part of the Tropical Cyclones Forecasting Project which is led by the UK Meteorological Office.

Nick Golden, Director of Underwriting, Reinsurance and Risk Management with the Royal & Sun Alliance Insurance Group - one of the seven companies sponsoring TSUNAMI - welcomed the forecast saying,

“This is the first attempt by the UK insurance industry to take leading edge science and tailor it to meet our competitive needs. Weather prediction is a complex area and absolute certainty may not be attainable, but any information that can improve our understanding of the risks presented by tropical cyclones will be of value to us.”

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Dr Dougal Goodman, Deputy Director (Innovation) of British Antarctic Survey - who developed TSUNAMI as a concept and heads the Management Board for the initiative - praised the scientists' progress to date and commented,

“The insurance industry has operated for many years with only limited data available on the hazards that drive its claims experience. Science can offer insight into those hazards and help insurers to operate with more confidence in an inherently uncertain environment. This first output from the Tropical Cyclones Forecasting Project shows that UK scientists are well equipped to communicate the results of their research to industry.”

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Notes to Editors

- US landfalling hurricanes cause more than £1.3 billion of damage a year, based on the 1946 - 1998 average, so even forecasts with modest skill can have huge financial benefits. Insurers need to receive US forecasts before 1st January - when most insurance and reinsurance contracts are renewed - so the forecast was produced on 1st December.
- A DTI report on the insurance industry in 1995 suggested that the UK industry was not investing sufficiently to gain competitive advantage over international competitors. Subsequent meetings between the Environment and Insurance Directorates at the Department of Trade and Industry and the Office of Science and Technology led to the TSUNAMI initiative. Tsunami is also the Japanese word for a tidal wave.
- TSUNAMI was developed with the involvement of the Finance panel of the Foresight programme and receives matching funding under the DTI's Sector Challenge. The Insurance Unit (Policy) of HM Treasury administers the public sector funds on behalf of the DTI.
- TSUNAMI is the British Antarctic Survey's response to the 1993 White Paper on Science and Technology which encourages the science community to form stronger links between industry and the research community.

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- British Antarctic Survey is responsible for the UK Government's research in Antarctica. It is one of the Natural Environment Research Council's (NERC) five research institutes and is funded by government via NERC and the Office of Science and Technology.
- The TSUNAMI consortium comprises: Benfield Greig Group, Catlin Underwriting Agencies Ltd, CGU Group, DP Mann Limited, Royal & Sun Alliance Insurance Group, Sedgwick Reinsurance Brokers and Wren Syndicates Management Ltd.
- The forecasts are presented as 'probability bands' for the expected number of landfalling storms of different intensities. The bands are similar to results spreads used in betting for sports events. The long lead time - nine months - means that it is impossible to predict precisely where, when and with what intensity a tropical cyclone will hit the US mainland. However, climactic conditions can indicate their likely behaviour during the US tropical cyclone season from 1 June to 30 September.

Dr Saunders and Dr Merchant made a thorough analysis of historical storm tracks to identify patterns in their development and direction. This behaviour was then linked to past data on sea-surface temperature, high level winds (above 20km) and rainfall West Africa, all of which are known to influence tropical cyclone development. By using predictions of conditions in the coming tropical cyclone season they were able to calculate the likelihood of landfalling tropical cyclones of different intensities.