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'Warming link' to big hurricanes

By Helen Briggs

BBC News science reporter

Records for the past 35 years show that hurricanes have got stronger in recent times, according to a global study.

This fits with mounting evidence which suggests the biggest storms around the world - hurricanes, typhoons and cyclones - are intensifying.

Some US scientists say that greenhouse warming may be driving the most severe events, such as Katrina, although more research is needed to be sure.

Their assessment of hurricane activity is published in the journal Science.

The idea that global warming might have an impact makes sense in theory, at least, since tropical storms need warm ocean water to build up strength.

But most scientists believe there is currently insufficient evidence to make such a claim, partly because of the lack of reliable long-term data.

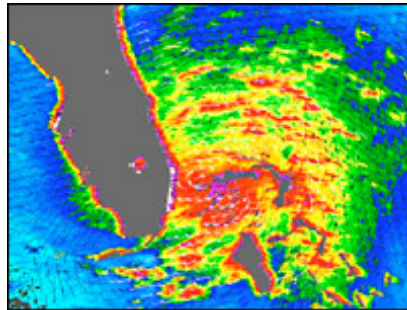
Satellite data

Now, scientists at Georgia Institute of Technology in Atlanta, Georgia, and the National Center for Atmospheric Research in Boulder, Colorado, have analysed global tropical cyclone statistics since satellite records began.

They found that there has been a sharp rise in the number of category 4 and 5 tropical cyclones - the most intense hurricanes that cause most of the damage on landfall - over this time period.

Between 1975 and 1989, there were 171 severe hurricanes but the number rose to 269 between 1990 and 2004.

The author of the study, Dr Peter Webster, told the BBC News website: "What I think we can say is that the increase in intensity is probably accounted for by the increase in sea surface temperature and I think probably the sea surface



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temperature increase is a manifestation of global warming."

Natural variation

The debate is likely to continue, however, as some scientists argue that the present hurricane surge is part of a 60 to 70-year cycle linked to natural effects.

They believe climate change due to human activity will not significantly affect hurricanes and that damage caused by increased development along coastlines is a bigger factor.

Julian Heming, hurricane expert at the Met Office in Exeter, UK, says that a longer term record is needed to establish a firm link between global warming and more powerful hurricanes.

He said: "I would say that this paper corroborates the widely held view in the scientific community that whilst global warming may not be having any impact on the frequency of tropical cyclones or even the proportion which reach hurricane strength, it may have an impact on the small proportion of tropical cyclones which attain the highest strength (category 4 and 5)."

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