## **BUMPIER PLANE RIDES**

Jet-setters, beware. Travelling by plane could be riskier in the future due to an invisible type of turbulence. Clear-air turbulence is increasing because of the way the jet stream - a fast-flowing air current high up in the atmosphere - is speeding up as a result of climate change, explains Prof Paul Williams, who studies atmospheric sciences at the University of Reading. "We have evidence that the jet stream over the north Atlantic, at flight levels, is blowing at a few miles an hour faster than it was a few decades ago," he says. The faster the jet stream blows, the more likely the air is to become unstable, and when it becomes unstable, it results in turbulence. Clear-air turbulence is more dangerous than turbulence created by clouds because pilots can't spot it ahead of the plane, so the seatbelt sign is usually off. Williams is one of the authors of a recent study that predicts a doubling of clear-air turbulence over North America, Europe and the North Pacific by the end of this century. Laser detection systems offer a possible solution, but they're currently heavy and expensive. "It would cost an airline more money to retrofit their fleet with this technology than they would save from the avoided injuries," says Williams.



