

. <http://www.bbc.com/news/business-25068222>

**23 November 2013 BBC News: Evidence of Equatorial Icing (CHG comments in red, emphasis in green) Journal of Cosmology Volume 23 April 9, 2014.**

***Fifteen airlines have been warned about the risk of ice forming on Boeing's new 747-8 and 787 Dreamliner planes.***

The issue - affecting some types of engines made by General Electric when planes fly near high-level thunderstorms - prompted Japan Airlines to cancel two international routes.

**There have been six incidents since April when aircraft powered by GE engines lost power at high altitude.**

These are the latest technical issues to hit the Dreamliner.

They saw the entire fleet being grounded earlier this year following battery problems.

The Boeing 747-8 series and the new 787 Dreamliner **are the only types of aircraft affected by the high-altitude icing issue.** **Equatorial Icing affects ALL aircraft.**

The new warning was given to airlines including Lufthansa, United Airlines and Japan Airlines.

It says aircraft with the affected engines - GE's GEnx - must not be flown within 50 nautical miles of thunderstorms that may contain ice crystals. **Thunderstorms may not be necessary for equatorial icing to occur, eg: MH 370 crash without thunderstorms.**

As a result, Japan Airlines (JAL) has decided to withdraw Dreamliners from service on the Tokyo-Delhi and Tokyo-Singapore routes.

"Boeing and JAL share a commitment to the safety of passengers and crews on board our airplanes. We respect JAL's decision to suspend some 787 services on specific routes," a Boeing spokesman said, according to Reuters news agency.

A GE spokesman told the agency the aviation industry was **experiencing "a growing number of ice-crystal icing encounters in recent years as the population of large commercial airliners has grown, particularly in tropical regions of the world"**.

He said GE and Boeing were hoping to eliminate the problem by modifying the engine control system software.

British airways use Rolls Royce engines on their Dreamliners. They are not affected by the warning, says the BBC's Ben Geoghegan. **All aircraft may crash by extreme equatorial icing conditions.** <http://www.bbc.com/news/business-25068222>