Why you should be careful crossing the Equator in an airplane

Carl H. Gibson

University of California at San Diego, Departments of MAE and SIO, 92093-0411, USA
cgibson@ucsd.edu

ABSTRACT

An accumulation of evidence suggests several aircraft crossing the Equator have suddenly crashed into the sea from massive icing events. Why? Most of the heat transfer from the Sun to the Earth is by radiation at equatorial latitudes. The energy is mostly (98%) used to evaporate water rather than heat it. Buoyancy forces from the water vapor and extremely intermittent turbulence drive plumes upward until the water condenses. Near the equator during hurricane season so much rain occurs that condensation nuclei may be depleted. Equatorial beamed zombie turbulence maser action (BZTMA) mixing chimneys occasionally transport supercooled steam with sufficient horizontal scales and mass flux that any plane entering the mixing chimney is doomed to crash from catastrophic equatorial icing before it can escape.

INTRODUCTION

Evidence of extreme turbulence and fossil turbulence mixing chimneys at equatorial latitudes is shown by AF 447 and MH 370 crashes that imply catastrophic icing conditions. BZTMA mixing chimneys may transport supercooled water vapor and strong turbulence to unusually high altitudes. At mid-latitudes pilots can usually change their flying altitude to escape an icing layer. Near the equator with global warming, the number of such death traps may be increasing. The AF 447 plane passed through a region of strong thunderstorms on the first day of hurricane season. The MH 370 plane may have encountered not only clear air turbulence but the clear air icing conditions of high altitude supersaturated water vapor.

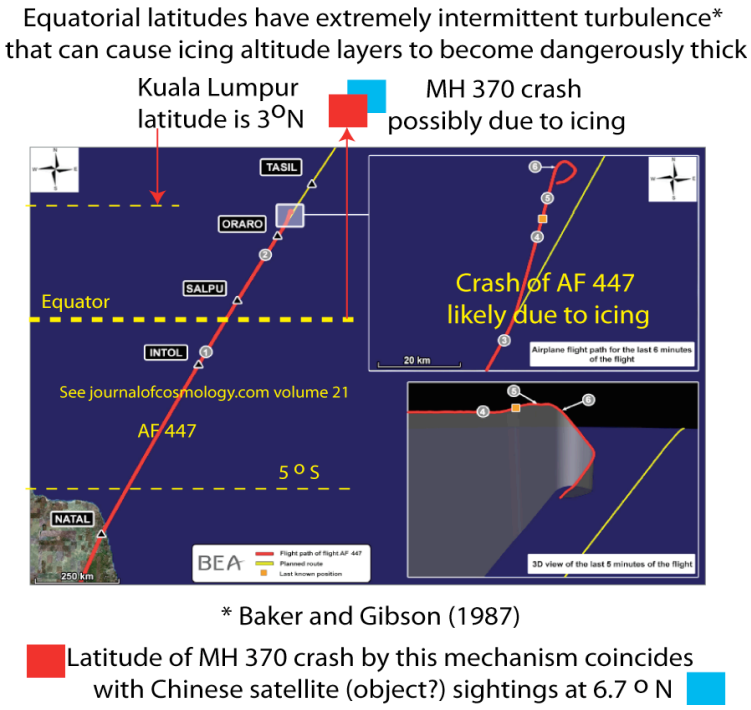
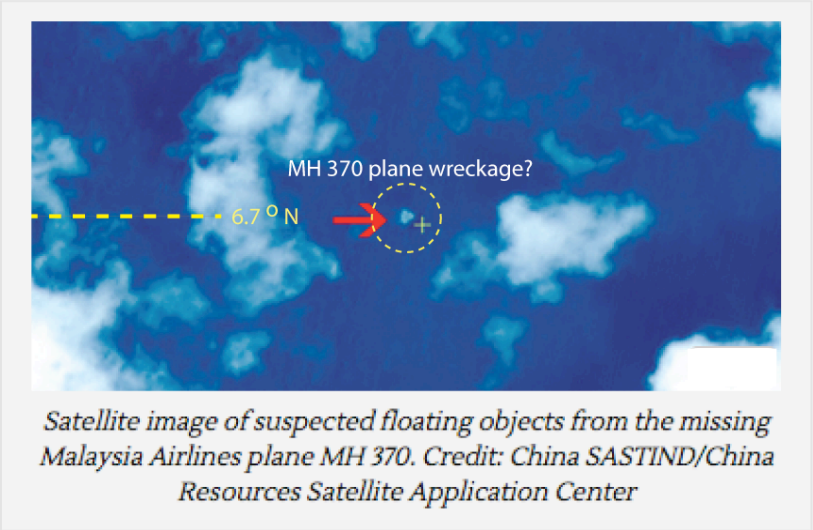


Fig. 1. Both the AF 447 and MH 370 crashes were at near equatorial latitudes. MH 370 departed from Kuala Lumpur, and likely crashed in the South China Sea soon after leaving land. It should still be easy to recover.

The following Chinese satellite image was displayed for only two hours on March 9, 2014, between 9 am and 11 am. The image was removed as a "mistake" but so far has not been repudiated or explained. The mistake appears to be that the longitude was written down as 105.63 E rather than 103.63 E, which is far off the flight path. The reported objects matched the size of a broken aircraft, but were gone when two search planes looked for them on March 11 at the 105.63 E longitude and found nothing. Three images were displayed from different times, judging from the different clouds and different object dispersions. Signals from MH 370 detected by satellite persisted until 8:11 am, 1.5 hrs beyond the expected flight time. No attempts to detect black box flight recorder signals with underwater sensors on the flight path have been reported as of March 17, 2014.



Satellite image of suspected floating objects from the missing Malaysia Airlines plane MH 370. Credit: China SASTIND/China Resources Satellite Application Center

Fig. 2. Chinese satellite image with likely mistaken longitude, misleading the search for MH 370.

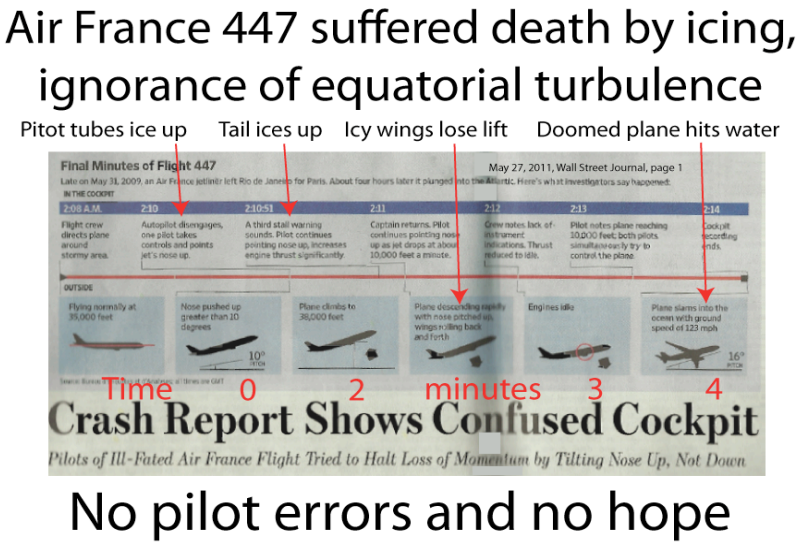


Fig. 3. Newspaper account of AF 447 crash suggests the pilot of the heavily iced plane could still control its angle of attack.

The AF 447 catastrophe clearly indicates the plane was doomed from the moment it hit the extreme-equatorial-intermittency BZTMA mixing chimney. A similar fate is indicated for MH 370. Present clear air turbulence models have no latitude dependency, which is the fault of ignorance of equatorial turbulence by the scientific community, not the pilots. Planes are not equipped with the necessary Lidar turbulence sensors needed. The following is from a front page Wall Street Journal clipping in 5/2011, blaming the pilots. There is no evidence whatsoever to suggest pilot confusion, or pilot error, in the 4 minutes it took for the icing events shown to debilitate the plane and force it to rapidly fall to the sea surface and crash. Because of the icing, the three experienced AF pilots in the cockpit lost all control of the plane except for its engine power, which the pilots properly reduced to idle just before it hit the water.

Catastrophic Equatorial Icing Hypothesis Published by Signal Magazine

Fig. 4. First publication of Catastrophic Equatorial Hypothesis by R. Norris Keeler in Signal Magazine May 1, 2015, as the futile search continues in deep waters off Australia.

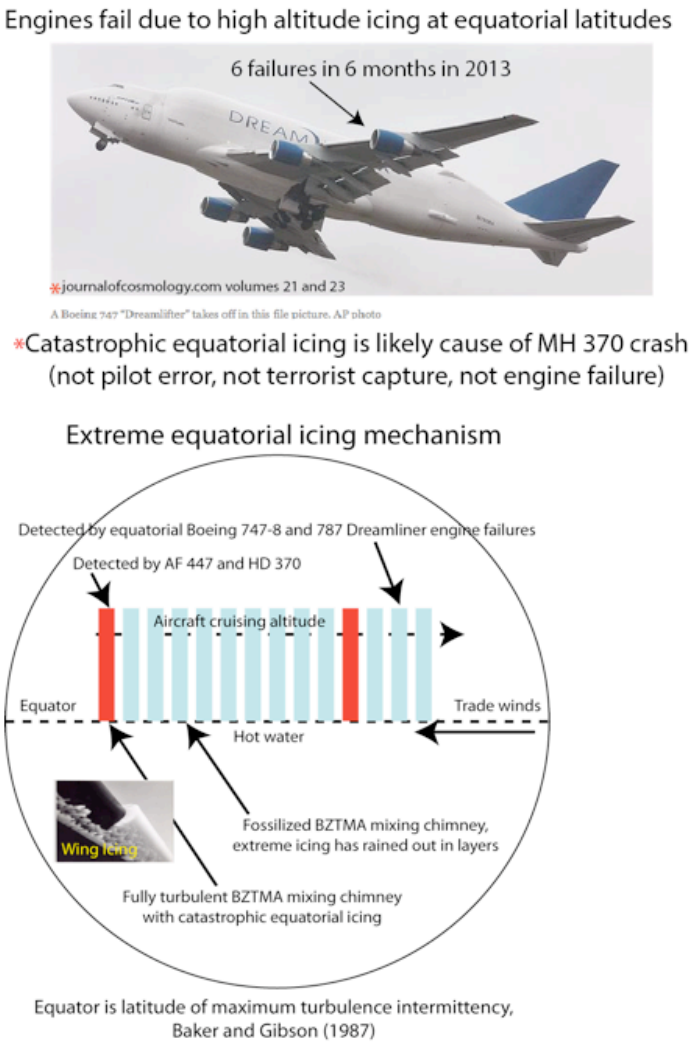


Fig. 5. Clear evidence that icing conditions exist at aircraft cruising altitudes. See Journal of Cosmology Volume 23.

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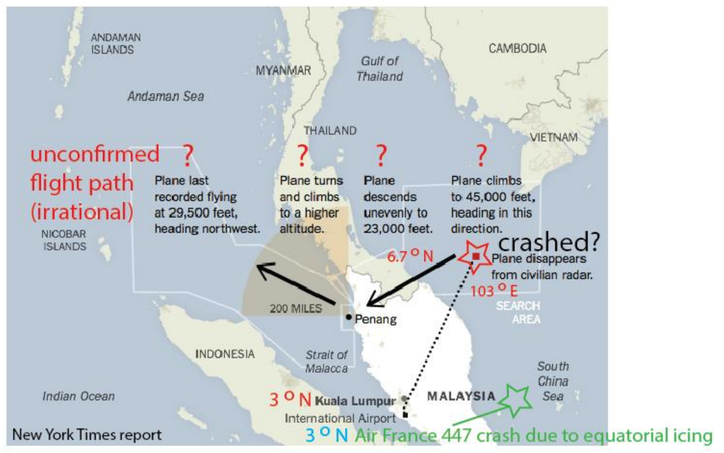
Catastrophic Equatorial Icing Caused the Air France 447 and Malaysian 370 Crashes: Risks of More Such Disasters Are Increased By Global Warming

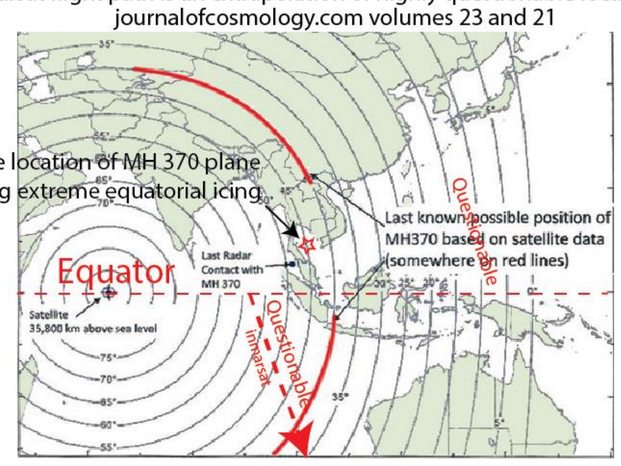
Carl H Gibson, University of California San Diego, La Jolla, CA, United States

Dangerous icing conditions near the equator have been observed, and may account for the tragic crashes of Air France 447 in 2009 and Malaysian Airlines 370 in 2014, not pilot error in either case. Six cases of engine failures from icing were reported in 2013 at high altitudes for 747-8 and 787 Dreamliner planes at tropical latitudes (journalofcosmology.com volume 23). Lack of horizontal Coriolis forces accounts for the extreme intermittency of equatorial turbulence and turbulent mixing, Baker and Gibson (1987). Intermittency factors inferred from the available microstructure data sets were much larger than those at higher latitudes, reflecting the wide range of scales of the turbulence cascade from small scales to large in the horizontal direction. Lognormal statistical analysis implies mean values of dissipation rates are likely to be 30,000 times larger than mode values at the equator, compared to only 2000 times larger at midlatitudes. Modern stratified turbulence theory (journalofcosmology.com volume 21) shows turbulent mixing of heat, mass, momentum, and chemical species in natural fluids such as the ocean, atmosphere, and cosmological fluids is dominated by mixing chimneys directed perpendicular to vertical and radial layers of gravitational stratification by the inertial vortex forces that define turbulence. Rarely, thick columns of supercooled steam reach cruising altitudes of jet aircraft. After entering such a column, the plane is doomed.

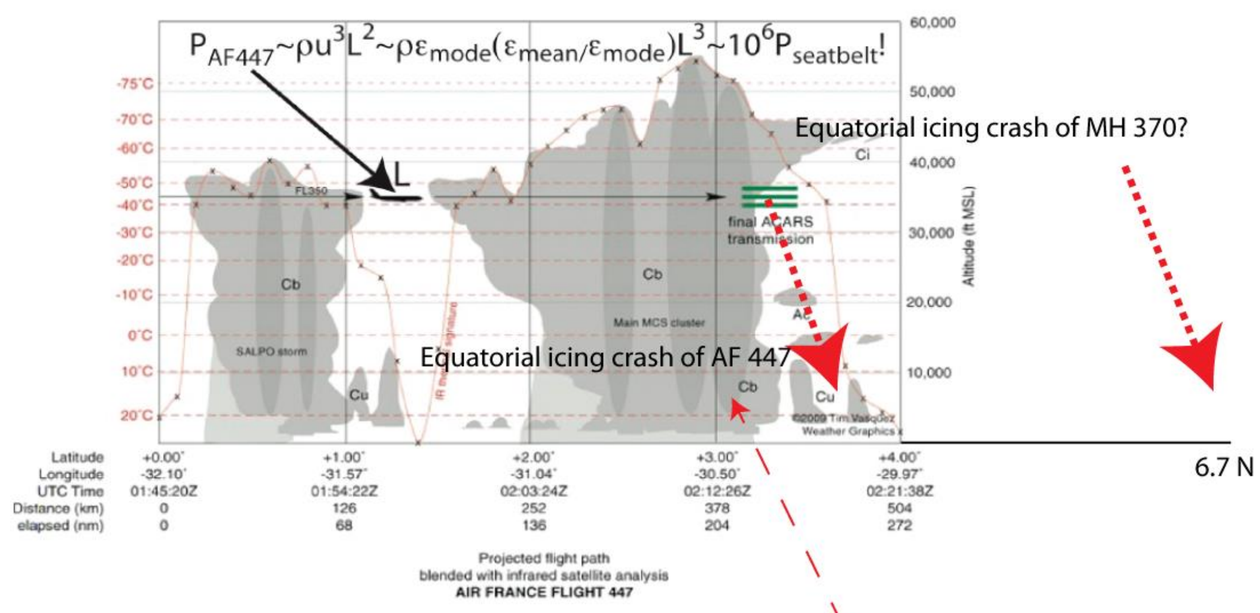
New MH 370 search area recommended



inmarsat flight path is an extrapolation of highly questionable locations
journalofcosmology.com volumes 23 and 21



Intermittent air turbulence and intermittent icing
caused AF 447 crash at equatorial latitudes, not pilot error



Powerful equatorial BZTMA mixing chimneys of supersaturated water vapor may have doomed both airplanes

How to test the equatorial icing crash hypothesis for MH 370

See journalofcosmology.com volume 21 for details

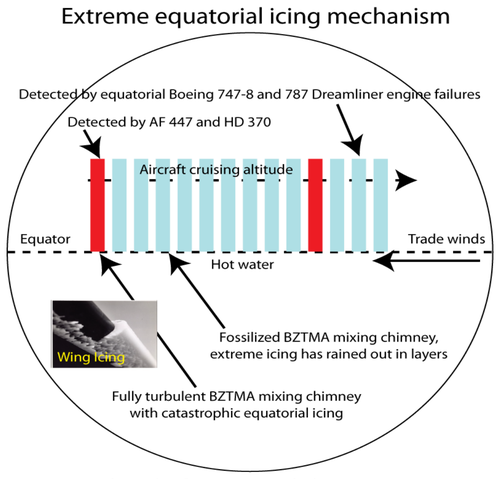
Engines fail due to high altitude icing at equatorial latitudes

*journalofcosmology.com volumes 21 and 23

A Boeing 747 "Dreamlifter" takes off in this file picture. AP photo

*Catastrophic equatorial icing is likely cause of MH 370 crash
(not pilot error, not terrorist capture, not engine failure)

Extreme equatorial icing mechanism



Equator is latitude of maximum turbulence intermittency,
Baker and Gibson (1987)