

**CONCLUSIONS OF THE 1st WORKSHOP ON AVIATION SAFETY
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The Federal University of Rio de Janeiro gathered a group of scientists from academic Institutions in Brazil, the United States of America, and France, to establish an open scientific forum for discussing and exchanging information on aviation safety in general. At this first meeting, emphasis was placed on the AF 447 accident of May 31st, 2009. The following questions and observations were raised as a result of the two-days workshop:

1. It is of crucial importance to learn from past accidents and experiences to improve safety in aviation. It is recommended that a database of past accidents be developed along the lines of that developed by the US Federal Aviation Administration (FAA) as presented during the meeting. Relevant information, technical or otherwise, needs to be fully disclosed and archived so as to allow for independent analysis and conclusions regarding the various previous accidents.
2. In order to achieve a higher threshold of safety, urgent revision of the international certification rules and standards should be stimulated worldwide.
3. Safety records of all commercial airlines should be made public so that they can be used as one of the metrics in the present scenario of increased market demands and competition among airlines.
4. Three major questions have been raised towards the understanding of the AF 447 accident. First, why a flight path through an adverse cloud formation was followed, despite the fact that all the other aircraft flying in the same time period have been redirected. Second, why the certification authorities did not issue a mandatory airworthiness directive for immediate replacement of Pitot tubes that had previously malfunctioned. Third, why even through such adverse conditions, could the pilots not control the aircraft given the fact that the latter is a modern and automated one.

5. In the particular case of the AF 447 accident, it is evident that not enough technical information has been disclosed so far to allow for an independent engineering assessment of the accident causes, including the behavior of the velocity sensors (Pitot tubes) under icing conditions.

6. Available technologies should be more widely adopted to improve the level of weather information during the flight employing satellite and base communications. Furthermore, it is highly recommended that critical flight parameters along with maintenance messages be reported, thus minimizing the reliance on airdata recorders (“black boxes”).