# Reliability Analysis of Pitot Static System Failure in North America

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### Abstract

This paper presents a Reliability and Maintainability approach to optimize the pitot tubes on any aircraft. For the pilot to be able to obtain precise numbers, the Pitot static system must be present and functioning properly. Without it, the pilot won't be able to make the right choice. Ice accumulation in flight poses a very serious risk to aviation safety. Failures and obstructions in the pitot-static system can have grave repercussions. Different reliability and maintainability methods will be used to improve the pitot tube's trustworthiness.

## **Keywords**

Reliability, Pitot static system, FMEA, Probability plot, FTA, Empirical model

## **Biographies**

Margot Fontaine is a dual Master student in Engineering Management and industrial Engineering of the Industrial Engineering Program in the A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering at the Lawrence Technological University, Southfield, Michigan, USA. She earned a B.S. in Aviation and Space Management from Middle Georgia State University, Macon, Georgia, A.S. in Engineering Technology at Cowley Community College, Arkansas city, Kansas.

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