

Aviation Text Analysis

The Problem

Investigating aviation safety incidents helps aviation experts make flying safer.

NASA needs tools to analyze the unstructured text of more than 80,000 incident reports in an effective way.

The Approach

- Preprocess the text to standardize the vocabulary and incorporate numeric and categorical data
- Identify typical patterns and relationships between accidents and incidents and trends over time
- Display the analysis results in an intuitive and insightful manner

The Accomplishments

- Developed and refined multivariate statistical tools using data from thousands of text reports and numeric and categorical data
- Found un-envisioned relationships rapidly
- Expanded the data sets of related events

