Updated Aircraft Damage Prediction Analysis

ABOUT PROJECT

- The aviation accident database synopses project, known as Aviation Data, is a comprehensive collection of data related to aviation accidents worldwide, providing detailed information and analysis to enhance safety and understanding within the aviation industry.
- The NTSB [National Transportation Safety Board] aviation accident database contains information from 1962 and later about civil aviation accidents and selected incidents within the United States and its territories.
    - The NTSB is an independent federal agency in the United States responsible for investigating transportation accidents, including those involving aviation.

OBJECTIVE

- The objective of the project on Aviation Accident Damage from the National Transportation Safety Board (NTSB) is to thoroughly investigate and analyze aviation accidents in order to understand the causes and consequences of these incidents.

- Determine if there are any specific plane models or engine types that exhibit a higher le vel of risk or danger in terms of flight safety.
- Investigate the weather conditions that have contributed to aviation accidents, aiming to understand the specific factors that lead to these incidents.
- Analyze the correlation between the number of engines on an aircraft and the likelihood of survivability, with the goal of determining if a higher number of engines leads to incre ased safety.
- Assess which phase of a flight poses the highest level of risk or danger, considering fac tors such as takeoff, climb, cruise, or landing.

Data Description

1. Event.Id: Unique identifier for each aviation event.
2. Investigation.Type: Type of investigation conducted for the event (e.g., Accident, Incident).
3. Accident.Number: Unique identifier assigned to each accident.
4. Event.Date: Date of the aviation event.
5. Location: Location where the event occurred.
6. Country: Country where the event occurred.
7. Latitude: Latitude coordinate of the event location.
8. Longitude: Longitude coordinate of the event location.
9. Airport.Code: Code assigned to the airport involved, if applicable.
10. Airport.Name: Name of the airport involved, if applicable.
11. Injury.Severity: Severity of injuries resulting from the event.
12. Aircraft.damage: Degree of damage to the aircraft (e.g., Destroyed, Substantial, Minor).
13. Aircraft.Category: Category of the aircraft involved (e.g., Airplane, Helicopter, Rocket, etc..).
14. Registration.Number: Unique identifier for the aircraft involved.
15. Make: Manufacturer of the aircraft.
16. Model: Model of the aircraft.
17. Amateur.Built: Indicates if the aircraft was amateur-built.

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18. Number.of.Engines: Number of engines on the aircraft.
19. Engine.Type: Type of engine(s) on the aircraft.
20. FAR.Description: Description based on Federal Aviation Regulations.
21. Schedule: Indicates if the flight was scheduled.
22. Purpose.of.flight: Purpose of the flight (e.g., Personal, Business).
23. Air.carrier: Name of the air carrier involved, if applicable.
24. Total.Fatal.Injuries: Total number of fatal injuries.
25. Total.Serious.Injuries: Total number of serious injuries.
26. Total.Minor.Injuries: Total number of minor injuries.
27. Total.Uninjured: Total number of individuals uninjured.
28. Weather.Condition: Weather conditions at the time of the event.
29. Broad.phase.of.flight: Broad phase of flight during which the event occurred.
30. Report.Status: Status of the investigation report.
31. Publication.Date: Date of publication of the investigation report.