

AIRPLANE CRASH ANALYSIS



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INTRODUCTION

Power BI is a collection of software services, apps, and connectors that work together to turn your unrelated sources of data into coherent, visually immersive, and interactive insights.

Project Objectives



- Temporal Analysis
- Geospatial Analysis
- Operator Performance
- Aircraft Analysis
- Fatality Trends
- Route Analysis



TRANSFORM THE DATA

The screenshot illustrates the process of transforming data within the Microsoft Power BI Data Editor. On the left, a preview of the 'Airplane Crashes Analysis (1).csv' file is shown, displaying a list of historical aircraft accidents from 1908 to 1919. The main workspace shows the 'Data' tab of the ribbon, with various visualization icons visible. A 'Transform' tab is active, showing a query editor window titled 'plane task (1)'. The query editor displays the transformed data with promoted headers:

Date	Time	Location	Operator	Flight #	Route	AC Type	Registration
9/17/1908	17:18	Fort Myer, Virginia	Military - U.S. Army		Demonstration	Wright Flyer III	
9/7/1909		Juvisy-sur-Orge, France		Air show	Wright Biplane		SC1
7/12/1912	6:30	Atlantic City, New Jersey	Military - U.S. Navy		Test flight	Dirigible	
8/6/1913		Victoria, British Columbia, Canada	Private			Curtiss seaplane	
9/9/1913	18:30	Over the North Sea	Military - German Navy			Zeppelin L-1 (airship)	
10/17/1913	10:30	Near Johannisthal, Germany	Military - German Navy			Zeppelin L-2 (airship)	
3/5/1915	1:00	Tienen, Belgium	Military - German Navy			Zeppelin L-8 (airship)	
9/3/1915	15:20	Off Cuxhaven, Germany	Military - German Navy			Zeppelin L-10 (airship)	
7/28/1916		Near Jambol, Bulgaria	Military - German Army			Schutte-Lanz S-L-10 (airship)	
9/24/1916	1:00	Billericay, England	Military - German Navy			Zeppelin L-32 (airship)	
10/1/1916	23:45	Potters Bar, England	Military - German Navy			Zeppelin L-31 (airship)	
11/21/1916		Mainz, Germany	Military - German Army			Super Zeppelin (airship)	
11/28/1916	23:45	Off West Hartlepool, England	Military - German Navy			Zeppelin L-34 (airship)	
3/4/1917		Near Gent, Belgium	Military - German Army			Airship	
3/30/1917		Off Northern Germany	Military - German Navy			Schutte-Lanz S-L-9 (airship)	
5/14/1917	5:15	Near Texel Island, North Sea	Military - German Navy			Zeppelin L-22 (airship)	
6/14/1917	8:45	Off Vlieland Island, North Sea	Military - German Navy			Zeppelin L-43 (airship)	L-48
6/17/1917		Near Yarmouth, England				Zeppelin L-95 (air ship)	
8/21/1917	7:00	Off western Denmark	Military - German Navy			Zeppelin L-23 (airship)	
10/20/1917	7:45	Near Luneville, France	Military - German Navy			Zeppelin L-44 (airship)	

The bottom right corner of the screenshot indicates 'PREVIEW DOWNLOADED AT 6:40 PM'.

AIRPLANE CRASH ANALYSIS

File Home Insert Modeling View Optimize Help

Cut Copy Paste Format painter Get data Excel workbook OneLake SQL Server Enter data Data Refresh Data source Transform data New visual Text box More visual New measure Quick Sensitivity Publish Copilot

Clipboard Data Queries Insert Calculations Sensitivity Share Copilot

Airplane Crash Analysis

Aircraft Analysis

Douglas DC-3
Antonov An-26
Douglas C-47
Douglas DC-6B
Ilyushin IL-18B
McDonnell Do...
Tupolev TU-15...
Douglas DC-4
de Havilland C...
Tupolev TU-13...

OK 5K

Sum of Fatalities by Year

Year 1908 2023

0K 1K 2K 3K

1920 1940 1960 1980 2000 2020

155K People Boarded

112K Total Death

4990 Total Count Of Death

Operator Performance

Aeroflot
Military - U.S. ...
Air France
American Airl...
Pan American ...
Military - U.S. ...
United Air Lines
Avianca
Turkish Airline...
Indian Airlines
China Airlines (...)

OK 5K 10K

Aircraft Analysis

Qtr 1 27K
Qtr 2 24K
Qtr 3 31K
Qtr 4 30K

100% 111.5%

0K 1K 2K 3K

1900 1920 1940 1960 1980 2000 2020 2040

Temporal Analysis Geospatial Analysis +

Visualizations Build visual Filters Data Search Airplane Crashes Anal...

Add data fields here Drill through Cross-report Keep all filters Add drill-through fields here

Off On

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AIRPLANE CRASH ANALYSIS OF VARIOUS LOCATIONS

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Cut Copy Paste Format painter Clipboard

Get data workbook data hub OneLake SQL Server Enter data Data Transform Refresh data Recent sources Queries

New visual Text box More visuals New measure measure Quick Calculations Sensitivity Publish Copilot Share Copilot

Filters Visualizations Data

Search

Filters on this page Add data fields here

Filters on all pages Add data fields here

Values Add data fields here

Drill through Cross-report Keep all filters

Add drill-through fields here

155K People Boarded 112K Total Death

Year 1908 2023

Route Analysis:

Route	Count
Tenerife - Las Pal...	500
New Delhi - Dhah...	450
Montreal - London	400
Riyadh - Jeddah	350
Amsterdam - Kual...	300
Bandar Abbas - D...	280
Tokyo - Osaka	250
Zahedan - Kerman	220
Chicago, IL - Los A...	200
Anchorage - Seoul	180
Taipei - Nagoya	160
Jeddah - Sokoto	140
New York City - S...	120
London - New Yo...	100
Boufarik AB - Bec...	80

Temporal Analysis Geospatial Analysis +

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The dashboard displays a world map with numerous colored circles representing airplane crash locations. The map includes labels for 'NORTH AMERICA', 'EUROPE', 'ASIA', 'AFRICA', and 'OCEANIA'. Two main card visualizations are shown: one for 'People Boarded' (155K) and one for 'Total Death' (112K). A date range slider allows filtering by year from 1908 to 2023. A bar chart titled 'Route Analysis' shows the top 20 routes with the highest counts, with Tenerife - Las Pal... being the most frequent route at 500.

CONCLUSION

By consolidating insights into a dashboard, stakeholders can identify trends, prioritize resources, and implement targeted interventions to mitigate risks effectively. This comprehensive approach enables continuous improvement in safety standards, fostering safer air travel for passengers and crew members worldwide.



**Thank
you!**

