

Bird Strike On Aircraft

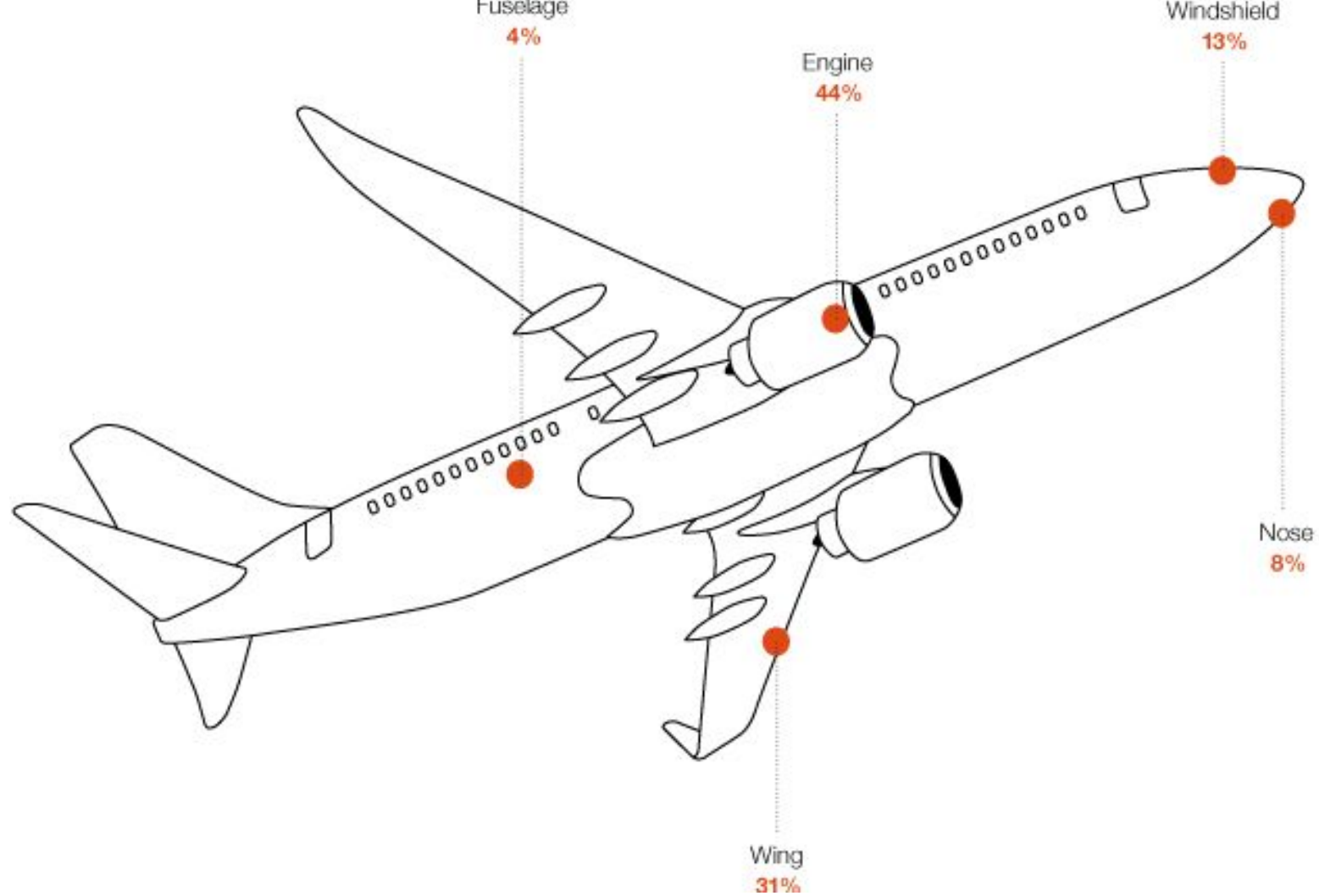
PHY1901

19BCE0829 Kandra Ksheeraj

What is the problem?

- Bird strikes are a common problem in the aviation industry causing potential damage to the aircraft or its engines.
- Every time a bird collides with an aircraft, a bird strike inspection must be performed to evaluate the hazard.
- Bird strikes can have significant economic and occasional safety consequences for flight operations.





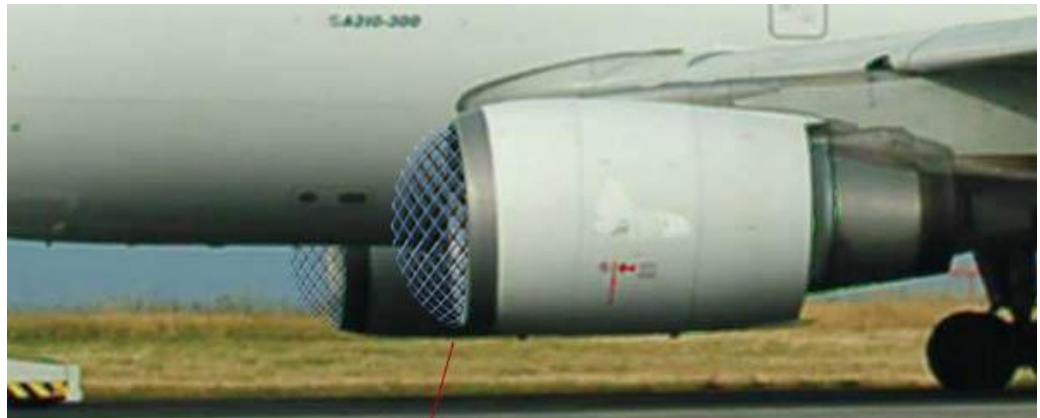
Proposed solutions

- provide adequate wildlife control measures
- Mesh or grill in front of the engine





Protective Mesh made from strong carbon composite material to protect engine from bird hits



Problem

Screen or grate in front of the engine would produce turbulence in the air behind it, and what the engine needs is a smooth flow of air. If the flow is disrupted, the compressor at the front of the engine may stall, causing the engine to lose lift.

What I am going to do

- Propose ideas to generate solutions to the problem by constructing software Simulation Models.
- Propose Improvements to present Bird Detection & Modern Radar Technologies.

References

- https://www.boeing.com/commercial/aeromagazine/articles/2011_q3/4/
- https://www.researchgate.net/publication/326971379_Case_Study_Aircraft_Accident_and_Bird_Strikes_in_Nepal_Between_1946-2016
- <https://www.flightglobal.com/engine-safety-birds-be-gone/98821.article>
- <https://mainblades.com/bird-strike-inspection/>
- <http://yedde.blogspot.com/2009/02/aeroplane-bird-hits.html>
- https://www.nytimes.com/2009/01/22/nyregion/22engines.html?_r=0